GEOLOGICAL SOCIETY,

February 4th, 1880.

LIBRARY REGULATIONS.

THE Council, with a view to the convenience of the Fellows generally, and to the better care of Works that are easily injured, have deemed it expedient to make the following regulations, in conformity with Section XIX. Art. 1 of the Bye-Laws.

1. The Books shall only be delivered to a Fellow of the Society or to some one producing a written order from such Fellow; and a receipt shall be given by the person to whom the book is delivered (expressing the name of the Fellow for whom it is received), in a book kept for that purpose.
2. Any Fellow failing to return a book on the application of the Council, or returning books torn or defaced, shall be considered as liable for their value; and if they are separate volumes, for the value of the whole work rendered imperfect.
3. All books allowed to circulate may be retained A FORTNIGHT; after the expiration of that time every book shall be immediately returned, so soon as the Fellow shall receive an intimation from the Librarian that it is wanted; and after the expiration of ONE MONTH from the date of its having been delivered from the Library, every book shall be returned.
4. All books shall be returned on the first Monday in September for a fortnight, during which period the Library shall be closed for cleaning.
5. No Fellow shall have in his possession at one time more than SIX VOLUMES, without the permission of the Council.
6. Any Member failing to comply with the above regulations, after receiving notice from the Librarian, shall be fined half-a-crown for every week that a volume is detained beyond the time allowed; and the privilege of having books from the Library shall cease until the fines are paid and the books are returned.
7. All charges of carriage and delivery of books &c. to and from Fellows shall be defrayed by the Fellow borrowing the same.

EXCEPTIONS.

I. There are certain Books which cannot be allowed to circulate. A list of these shall be prefixed to the printed Catalogue of the Library; and a notice of such additions to that list as the Council may from time to time feel it necessary to make shall be fixed up in the Library.

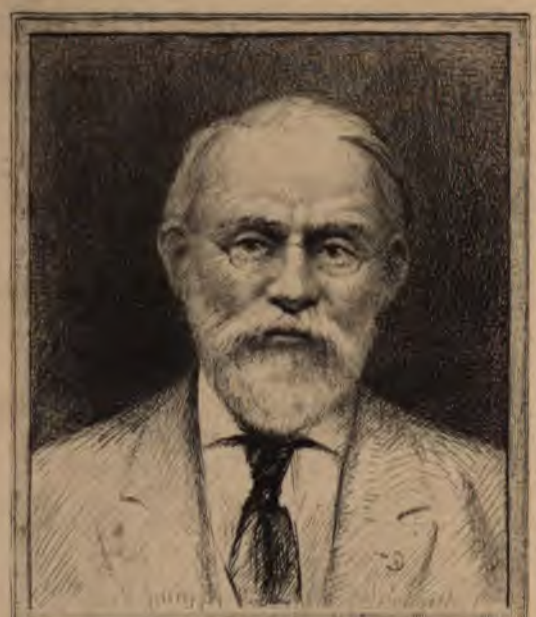
II. No Map, Section, or Drawing can be allowed to circulate without permission in writing granted by the Council, or by the President or one of the Secretaries.

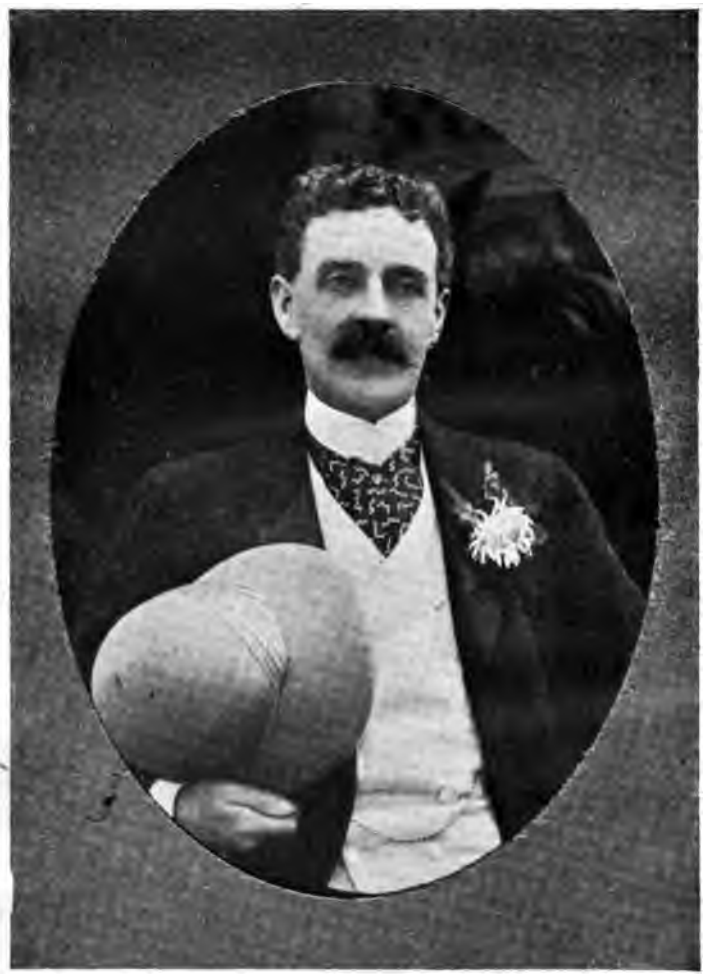
III. No book or illustration in loose sheets shall be allowed to circulate.

IV. No Periodical Publication, and no Volume or Part of the Transactions of any Society, shall be allowed to circulate until after the expiration of four months from the date of its having been received at the Society.

V. All new works shall circulate amongst the Fellows after the expiration of a fortnight from the time of their being received, unless the Council (or, during the recess, the President or one of the Secretaries) shall determine otherwise.

No Book lent *to the Society is allowed to circulate without a written order from the Proprietor.*





Lord Lamington.

THE JOURNAL

OF THE

BOMBAY BRANCH

OF THE

ROYAL ASIATIC SOCIETY.

EXTRA NUMBER.

THE CENTENARY MEMORIAL VOLUME.

(Edited by the Honorary Secretary.)

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1905.

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COMMITTEE IN JANUARY, 1905.

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Rev. R. SCOTT, M.A.

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Bombay Branch, Royal Asiatic Society.

CENTENARY CELEBRATION.

PART I.

1.—Record of Proceedings.

Bombay Branch of the Royal Asiatic Society came into e, under the designation of the Bombay Literary Society, on November 1804. As the hundredth anniversary of its founda- s thus approaching it was considered expedient to take s for the commemoration thereof. The matter was brought he Committee of Management on the 17th September 1903. t question put was whether an International Congress could be ut the financial difficulties, coupled with the fact that a meeting of the International Congress of Orientalists was about to be held in Algiers induced the Committee to lay aside the larger scheme and confine itself to a local celebration. A Sub-Committee was appointed to prepare a plan. Its chief recommendations were (1) that a meeting or meetings of the Society should be held at which papers should be read, (2) that a Memorial Volume should be published containing an account of the results achieved in Oriental study and also original papers, and (3) that if possible a Centenary catalogue of the books in the library should be printed. It was also suggested that a public *Conversazione* should be held ; and an excursion made to some place of historic interest. At a meeting on the 25th February 1904, these recommendations were adopted and it was agreed to issue a circular to members, setting forth the proposals and requesting subscriptions. In response to this circular about two thousand Rupees were received. At a later meeting it was resolved that the celebration should commence on the 17th January 1905.

A programme of papers was drawn up and circulated. The Sections were—Sanskrit, Persian, Archæology, Numismatics, History and Science. It was intended that one half of the papers should

present summaries of past investigations or results achieved while the other half should deal with questions of to-day. In its final shape the programme contained twenty-two papers. An account of the Growth of Bombay during the Nineteenth Century, undertaken by a highly competent civilian had for the present, in consequence of increased official duties, to be abandoned.

The celebration began on Tuesday, the 17th January. On that day at 4 P.M. the Persian Section met when Mr. J. J. Modi read his paper entitled a "Glimpse into the Journals of the Society." The Chairman, Mr. K. R. Cama, in opening the proceedings remarked on the distinguished founders of the Society, and added that no other Institution in Western India had reached the venerable age of a hundred years. At 5-15 in the Durbar Room the Honorary Secretary read a paper on the "History of the Society" when the Hon'ble Sir Lawrence Jenkins, K.C.I.E., Chief Justice, presided. At this meeting over one hundred were present. At 6-15 the Archæology Section commenced when the Hon'ble Mr. Justice Batty presided. The walls of the room were adorned with Drawings from the Archæological office. Dr. Burgess' paper was announced and Mr. Cousens' paper was read. Some discussion followed in which Dr. Bhandarkar, Mr. Modi and Mr. Haraprasad Shastri of Calcutta, took part. The Shastri urged that Excavation should go hand in hand with Conservation. It was proposed and unanimously agreed to that a vote of thanks be conveyed to H. E. Lord Curzon, the Viceroy, for the intelligent and careful interest he has shown in the monuments of the country, culminating in the Act recently passed for the Preservation of Ancient Monuments (1904). At 8-30 the Persian Section (adjourned) met, Mr. Modi in the Chair, when papers were read by Professor Isfahani on "Arabic Poetry" and Professor Coyaji on the "Persian Language."

The SECOND DAY was devoted entirely to the Sanskrit Section. In the first sitting from 11-30—1-30 four papers were read; by Professor Bhadkamkar on "Investigations of Sanskrit Literature," Professor S. R. Bhandarkar on the "Search for Sanskrit Manuscripts," Professor Pathak on the "Age of the Sanskrit Poet, Kaviraj," and Mr. V. R. Natu on an "Inscription from Vijayanagar." Dr. Bhandarkar presided throughout and the first and fourth papers were followed by considerable discussion. In the afternoon sitting (3-30—6-30) other four papers were read; by the Rev. Dr. Abbott on the "Language of the Katkaris," Mr. M. R. Bodas on "Hindu Philosophy," Dr. Bhandarkar on the "Elucidation of the History of the Country by the Study of Inscriptions" and Mr. A. M. T. Jackson, I.C.S., on "Epics and Puranas." During the reading of the last two, Mr. Justice Chandavarkar occupied the Chair.

The THIRD DAY (19th January) was occupied with the History, Science and Numismatics Sections. The History Section met in the forenoon, Mr. James McDonald presiding, when papers were read by Mr. Purshottam V. Maoji on "Native Administrative Genius in the Nineteenth Century," and Mr. D. B. Parasnis on the "Progress of Marathi Historical Literature." The meeting then adjourned. At 4 P.M. the Science Section met, the Rev. Dr. Mackichan in the Chair. Lt.-Colonel Kirtikar, I.M.S., read his paper on the "Progress in Botany and Zoology during the last Century." This was followed, after a brief interval during which a group was photographed, by Lt.-Colonel W. Bannerman, I.M.S., who read a paper on "Some Recent Advances in Protozoal Pathology in Relation to Human Beings." The concluding remarks of the Chairman are given elsewhere.

At 6-30 the Numismatics Section met. Principal MacMillan presided. Mr. A. M. T. Jackson, I.C.S., read a paper giving a summary of the Researches published in the Society's Journals. The Rev. Dr. G. P. Taylor submitted and partially read a paper on the "Moghul Mints" in which he gave exhaustive statistics. With the Chairman's remarks the meeting closed.

On the FOURTH DAY, (20th January) at 11-30 A.M., the History Section held its second meeting. Mr. R. P. Karkaria read a paper on the "Death of Shivaji" and Mr. V. R. Natu followed with a paper on a "History of Bijapur" written in Persian by Raffuden Ibrahim Tawafik Shiraji. This concluded the reading of papers.

The Social side of the Programme contained the following items:—

18th Jan.	8-30—11-30 P.M.	...	*Conversazione.*
20th ,,	2-15— 6-30 ,,	...	Excursion to Elephanta.
,, ,,	9-0—11- 0 ,,	...	Visit to Industrial Exhibition.
21st ,,	4-0— 6- 0 ,,	...	Afternoon party given by Mr. Tribhuvandas Mangaldas Nathubhoy.

The last of these on account of the sudden illness of Mr. Tribhuvandas had to be postponed. The Excursion to Elephanta in a steamer liberally granted by Mr. A. M. Monteath, Agent of the B. I. S. N. Co., gave great satisfaction to the party who availed themselves of it. Dr. Bhandarkar, LL.D., C.I.E., was the chief interpreter. The group was photographed both with sunlight and flashlight; in the latter case in front of the Trimurti or triple figure of the central cave.

The *Conversazione* on Wednesday evening was the most popular function of the celebration. The attendance approximated six hundred. The arrangements for the evening, in which the office was

actively assisted by Mr. Aspinwall, were in two parts. During the first (8-30—10-0) objects of Scientific and Artistic interest were exhibited. During the second (10-0—11-30) addresses were delivered under the presidency of H. E. Lord Lamington, the Governor.

During this evening the Central Hall, the Library Rooms and also the rooms on the south side were taken advantage of. The Central Hall was, with the aid of Mr. Cecil Burns of the School of Art, tastefully decorated, and on a succession of tables a large number of art or illustrated books were laid out. At the back of the Hall were refreshments while in front on the verandah was a telescope from Wilson College, directed to the planet Jupiter whose sixth moon has just been discovered. At rapid intervals instrumental music was played; organ recitals being given by Major Jennings, I.M.S., Mr. Clement Robinson and Mr. Macnee, a pianola being exhibited by a representative of Messrs. Rose & Co., and cornet solos being given by Mr. Aubrey Rhenius. In the first room on the north-western side Messrs. Kemp & Co. exhibited in darkness the wonderful luminosity of Radium. In the next room there was a large variety of objects of interest. On one set of tables ancient coins were exhibited, gold, silver and copper, and the gold and silver seals of the late Satara kingdom, On another set of tables were old and rare books and MSS. These included Sanskrit MSS. on decorated palm leaves, Buddhist MSS. from Nepaul, an illuminated MS. of the Koran, and a beautiful fourteenth century MS. of Dante's Divina Commedia. On a third set of tables Colonel Bannerman, I.M.S., Director of the Plague Research Laboratory, assisted by Captain Liston, I.M.S., exhibited by means of Microscopic slides various micro-organisms. In the other Library rooms many valuable books and art publications were laid out, and in the main room a Gramophone, lent by Messrs. Nadkarni & Co., gave forth Indian music. The two rooms to the south-east of the Central Hall were also fully occupied. In one of these Colonel Bannerman exhibited on a screen, and explained, the life-history of the malaria parasite and of others referred to in his Paper, while Colonel Kirtikar gave interesting displays of a botanical kind. In the other room Major Collis-Barry, I.M.S., of Grant Medical College, exhibited a great variety of chemical instruments and apparatus, including the spectroscope, the X-rays and means for testing economic products, such as oils, spirits, wines and sugar.

Colonel Bannerman's specimens illustrative of his paper "On Recent Advances in Protozoal Pathology" included the following:—

1. Parasites of malarial fever showing the endogenous or schizogonous cycle of the parasite in man in various stages of development.

2. Parasites of Surra and Nagana ; (*Trypanosoma evansi* and *T. bruci*) ; attention being called to the recent prevalence of the former among the horses in Bombay, and the relationship of these to the trypanosomes causing the sleeping sickness of Uganda.

3. Parasites of Splenomegaly, causing the diseases known as " Kala Azar " in Assam and " Chronic Malarial Cachexia " in Madras. As these diseases have not yet been found in Bombay, the Society was indebted to Major C. Donovan, I.M.S., of Madras, for specimens of the parasite (*Leishmania donovani*) from the spleen of a patient, and to Lieut. S. R. Christophers, I.M.S., of the King Institute, Madras, for a very interesting and unique slide showing the flagellate form of this parasite as developed in citrated blood and discovered by him some two months ago.

In addition to these protozoal forms, some slides showing the *Spirillum obermeieri* the causative agent of Relapsing fever, and *Bacillus pestis* were shown.

The lantern display showed the development of the Malarial parasite in human blood and in the body of the Anopheles mosquito and portraits of Laveran, the discoverer of the parasite, Sir Patrick Manson, the propounder of the mosquito theory, and Major Ronald Ross, I.M.S., who proved the truth of this theory, were displayed. Typical pictures of the various kinds of mosquitoes and their breeding grounds in Bombay City were also shown.

Specimens of the *Trypanosoma gambiense*, the cause of Sleeping Sickness, *T. brucei* and *evansi*, the cause of Tsetse-fly disease (Nagana) in Africa and Surra in India were likewise displayed on the screen. A picture of *Glossina palpalis*, the biting fly, which conveys sleeping sickness from one person to another was displayed.

A short lecture explanatory of the above was delivered on two occasions during the evening by Lieut.-Colonel Bannerman.

About 10 P.M. His Excellency Lord Lamington accompanied by the Private Secretary arrived and was met by the Vice-Presidents, Members of Committee, the Hon. Mr. Edgerley, Member of Council, and several Judges and leading citizens. The audience stood while the National Anthem was played. His Excellency then briefly visited the various rooms and thereafter took the chair.

Lord Lamington in addressing the meeting said:—Ladies and Gentlemen,—I have in the first place to apologise for being rather late in my arrival here this evening. I must say that it is in part due to the fact that whilst we possess so many admirable institutions in Bombay, we still possess some which belong to a bye-gone age such as a level-crossing over the railway which very often obstructs traffic and causes considerable delay. I regret, too, on my own account, that I was late, because I had to pay a hurried visit to the various rooms round this central hall to inspect many objects of interest that are displayed there. I may say that having seen what I have seen there I congratulate those who have organised the exhibition for the thoroughness of the various articles of scientific use that have been collected together and also for being the possessors of so many valuable books and great collection of coins. I noticed from the programme of this evening that one of two courses was open to me. One is comparatively easy, and the other is difficult. I naturally preferred the easy one, and I am right in my selection. My easy course was that my remarks should be very brief. I am inclined to say that I am justified in making that choice from the fact that no one here wishes to hear about the Society. In the first place I presume that they are probably acquainted with the work of the Society and have read its journals, and feel that they have plenty of opportunity of reading in the press the history of the Society, and above all they must have had opportunities of informing themselves with the very splendid address given yesterday by my friend on my right, the Rev. Mr. Scott (Applause). But in case any one in this hall and particularly any of the outside public has not read that address I strongly advise him to study it, and more particularly the last column which summarises his remarks. You could not get a more adequate history or better idea of the scope of the work undertaken by the Society, and above all you could not get more tersely put all maxims more appropriately dealing with the advantages of study and of research. Well, ladies and gentlemen, I do not propose for a moment to do most inadequately what has been performed so very effectively by Mr. Scott. But I do think this Asiatic Society in Bombay is deserving of all credit for the work it has done in the past and for what it is doing at present. One or two events of its past history give sufficient evidence of the value of its work. As you see stated in the journals of the Society, from time to time it has been consulted by the Government of India. In 1847 when the Chinese Mission was being despatched, the Government of India asked it to put down succinctly what should be the desiderata of that mission in regard to inquiry and research in China. You are aware that the Society was responsible for an observatory in Bombay, and appointed an astronomer for it. It was also consulted by the Government of India regarding antiquarian research. This is sufficient

to show that the work for which this Society has made itself originally responsible has been recognised by the Supreme Government. As Mr. Scott said, the work undertaken by the Parent Society in London is now being taken up by other special societies, and to a greater extent by several departments under Government. That is natural. But one ought to say that this Society still is a starting point for anybody whether official or non-official to prosecute inquiry or research. They can come here and get information on almost every branch of knowledge. And there is one very notable feature to my mind, on looking at this assembly here, to think that it was only in 1840 that Mr. Manockji was the first native of India who was admitted within the precincts of this Society. When I see so many native gentlemen before me this evening and when I know that addresses have been read by them on the occasion of this centenary, it is very evident what firm hold this Society has, not only upon the Europeans, who were originally responsible for its undertaking but upon those who are properly the most interested in conducting and extending the operations of this Society. And may I say one other word about these days of specialisation? It is quite true that there are departments which inquire deeply and take up subjects which were formerly taken up by the Parent Society. I do not think that that ought to deter any individual who is keenly desirous of informing himself and possibly the world at large. However specialisation is the order of the day. Some particular point is always open to the anxious inquirer: no matter how trivial the subject may be, there is always something fresh to learn about it. And, therefore, whilst the departments of the Society are dealing with special branches of knowledge, it is still open to the individual to prosecute inquiries on one particular or special point. I think there are many others who might well devote some portion of their time—even if it is an hour or so—to try to elucidate subjects which still require investigation. There may not perhaps be time to extend their inquiry over a large field, but some small corner of it is still open to them to prosecute inquiry upon. Whilst doing so they will gain interest in their own lines and possibly thus will extend and increase the sum of human knowledge. Ladies and gentlemen, there is one other branch of course of the Society by which it has been more particularly known by the outside public and that is its library, and it is very gratifying to know that there are nearly a hundred thousand volumes for which this Society is responsible. It is no doubt the branch which appeals to the larger proportion of the public. I am glad to say that they have collected not only numbers of books but they have become possessor of valuable volumes of solid and permanent interest. Mr. Scott in his remarks yesterday referred to the question of the museum, which I trust may soon be started. (Applause.) But I should like to mention, because I brought forward

the idea last year, that I do not wish to be thought that I myself am pressing for the starting of a museum. What I should like to see would be a spontaneous desire on the part of the people of Bombay to have in their midst a place where treasures of various interest may properly be housed. It is to be assumed that if a museum were started, it would be visited by numbers of people. Equally before the museum is started, I should like to see the idea of the scheme having the support of the multitude at large. I do not see why—if an object which is fraught with public interest—why the public in the first place should not show that they are intent upon being the possessor of the musuem of the character I described. I only therefore wish to make that remark, because I should like to see the idea being taken up by those who are really to be benefited hereafter. I wish now to express my satisfaction on being present on this very notable occasion. I imagine, among other talents, Sir James Mackintosh must have had that great gift of imagination. Sir James Mackintosh, that very illustrious lawyer, politician, and philosopher, when in company with his distinguished friends at Parel Government House, must have foreseen possibly how the scheme which they evolved would develop in future. That was a hundred years ago, and, therefore, I think we should pay this tribute of regard to the memory of Sir James Mackintosh and his colleagues, who originated what it then was, the Literary Society of Bombay. I trust that this centenary only marks one mile stone in the course of prosperity that awaits the Royal Asiatic Society of Bombay in future—a course of prosperity, which will tend to individuals acquiring fresh interests and knowledge in their own lives and which will enable them also to change the unknown into the known. (Loud applause.)

His Highness the Aga Khan said :—Your Excellency, ladies and gentlemen,—On this historical occasion of the celebration of the centenary of this Society, I consider it to be a great privilege to be permitted to add my congratulation to those which it has received from so many influential quarters. In the growth of Bombay itself, the Society has played a conspicuous part, for at the time of its birth there were hardly any public bodies in existence here, which had for their objects either the growth of Western knowledge, of the introduction of Western culture and institutions, or the bringing together of men of European and Indian nationalities in the pursuit of literature. At this time of the day, when such bodies are not uncommon amongst us, it may be difficult to realise the magnanimity and the far-seeing benevolence of those who took upon themselves to found an institution with such noble ends. But the ample realisation of those objects in the working of this Society throughout its eventful career, and the copious imitation, which the example of its conception has had in re-

cent years in the growth of other literary and scientific bodies, prove that it has largely contributed that energy to the public life of Bombay which has given her a high place not only amongst the cities of India, but amongst those also of the civilised world. It is difficult for us now to realise what a tremendous boon this magnificent library, so compact and yet so rich in the possession of the gems of both Western and Oriental literature, must have been for the patient seekers of modern knowledge in the early days of the last century. To me the Society to-night appeals personally in a particular way, and I crave your pardon, Sir, for making a few personal remarks. In the days of my boyhood it did me the honour of allowing me a complimentary admission within its portal. Many and many a profitable and happy hour, perhaps the happiest of my student days, I passed within its walls. Its rich treasures of knowledge I pored over day after day at that period of my life. The lessons those moments of study imprinted on my mind have been, I think, most useful to me in after-life. I have ever since carried a grateful sense of what I owe to the Society, and, I am sure, there are not few, not tens or dozens, but hundreds of men, who owe as much as I do to this magnificent library, which the generosity and the forethought of the founders of the Society have placed at the disposal of all. I have accepted the kind and cordial invitation to take part in these proceedings to-night, not merely as a matter of formality, but in the belief that I owe it a debt of gratitude, which I am proud to acknowledge in as public a manner as I possibly can. I wish the Society many centuries of vigorous career with an ever-increasing influence for good. (Applause.)

The Hon. Mr. Justice Chandavarkar said: The Honorary Secretary has asked me to say a few words on this occasion on the work done by the Society from a Hindoo point of view, and I cannot comply with his request better than by mentioning very briefly the names of Hindoo scholars who have by their contributions to the cause of antiquarian research brought credit and distinction to this Society. I propose to speak of those Hindoo scholars only who are no more, because as for the living, they are there yet working, and we all know their work and worth. The first antiquarian scholar among Hindoos who enriched the literature of this Society was Professor Bâl Shastri Jambhekar. He was something of a genius—as skilled a mathematician and literary scholar as he was an erudite Shastri. His papers on several inscriptions are among the earliest records of our Society, and are even now worth perusal. He died at the early age of 35, but even then he had acquired a great reputation as a scholar and antiquarian. Next came Dr. Bhau Daji who took keen interest in antiquarian research and contributed papers on inscriptions to the Society's Jour

nal. Rao Saheb Vishvanath Narayán Mandlik rendered valuable services to the same cause, and was well known for his ardent pursuit of antiquarian studies. Pandit Bhagwanlal was a born antiquarian. He had a genius for deciphering inscriptions and towers high above all who have hitherto looked in that line. Coming to the late Mr. Justice Telang I wish to speak with more detail of this brilliant worker in the field of antiquarian research and scholarship, with which this Society has identified itself ever since it came into existence. It is not possible to do justice to the task within the five or ten minutes allotted to me, and I must, therefore, content myself by making but two or three observations which appear to me to be most appropriate to the occasion. Literary work was the most favourite pursuit of Mr. Telang, and even in literary work what he enjoyed most was the examination of old inscriptions, and the settlement of the date of some ancient author in Sanskrit literature. He was an active contributor to the pages of this Society's Journal and to the pages of the "Indian Antiquary." His contributions on antiquarian subjects cover a period of nearly twenty years, and commenced, I believe, with his well-known tractate, published at the beginning of 1873, when he was 22 years of age, on "Was the 'Ramayana' copied from Homer," being a reply to Professor Weber. He translated the "Bhagvad Gita" into English verse just about that period, and later on, he translated the same work into English prose for Professor Max Müller's "Sacred Books of the East." His edition of the "Mudra Rakhsasha," a Sanskrit drama, and of Bhartrihari's two poems the "Niti Sattaka" and the "Vairagia Sattaka," are still valued for his critical notes, and the elaborate introduction to each, in which he has with his lucidity pointed out what, in his opinion, is the age in which the author of each flourished; then there are his papers on the "Chalukia" dynasty; the age of Madhusudhana Sarasvati, author of the "Gita Gudhartha Dipika," being a commentary on the "Bhagvad Gita," in which combating Lassen and Burnouf's view that Madhusudhana flourished in the XIVth century A.C., Telang came to the conclusion that the commentator flourished in the reign of Aurangzebe, either at the end of the XVth or the beginning of the XVIth century of the Christian era. In a note on Badarayana, author of the "Brahama Sutras," he pointed out that these dated back to a far remoter age than 400 to 500 A.D., which was the date assigned to them by Professor Weber. But the most important of his contributions were those devoted to determining the age of the eminent philosopher, Shankaracharia, his opinion being that the latter flourished in the reign of the Buddhistic King Purnavarma, who is mentioned by the Chinese traveller, Hiuentsiang, as having been the ruler of West Maghadha. In Mr. Telang's opinion, Purnavarma must

have reigned at the latest in about 590 A.C. Among other papers of his are those which deal with such subjects as the date of Udayanacharya's "Nyaya Kusumanjali," the dates of Shri Harsha, Kalidas and Chand, and the "Shunkara Vijaya" of Anandgiri. Trained in the school, so to say, of Mill, Huxley, Spencer and Strauss, in the earlier years of his career, and disciplined in the severe logic and close dialectics of Shri Shankaracharya, Mr. Telang had more of the critical than the constructive talent and was at his best when he strove to detect the flaws and fallacies in opinions advanced, or theories contributed, by scholars. He approached all these questions on antiquarian subjects with a complete freedom from all bias or preconceived theories, and rigidly held with Emerson to the principle that a scholar, at all events, "must take unto himself all the ability of the time, the contributions of the past, all the hopes of the future." There was no point, however small, which he did not take into account, and to which he did not strive to do justice, in determining some knotty point in antiquarian research. "It is almost impossible," he has said in one place, "to accept any one line of reasoning, or any single group of facts, as conclusive about the precise date of any book in Sanskrit literature, at all events, in the present condition of Sanskrit chronology, when it is almost literally true that, as I think an American Sanskritist puts it, Indian literary dates are, for the most part, 'only so many pins set up to be bowled down again.' " It is sufficient to say here, in the language of Sir Raymond West, who was President of this Society, for several years, that Telang's papers on antiquarian subjects have left behind "material enough to make the Society distinguished for generations to come."

After an interval of Organ Recital letters of congratulation were announced from the following Societies :—

The Royal Asiatic Society, Royal Geographical Society, Royal Society of Edinburgh, Royal Academy of Sciences of Amsterdam, Academie Royale des Scieners des Lettres et des Beaux Arts de Belgique, American Oriental Society, American Philological Association, Royal Geographical Society of Australia, Asiatic Society of Japan, Royal Asiatic Society and Literary Society of Madras.

It was also announced that Delegates had been nominated by the following : the Royal Asiatic Society, the Royal Geographical Society, the Royal Society of Edinburgh, the American Oriental Society and the Bengal Branch of the Royal Asiatic Society. Some of these had not been able to attend. On the platform there were representing the Royal Asiatic Society, Dr. Bhandarkar, LL.D., C.I.E., Colonel Jayakar, I.M.S., and Mr. A. M. T. Jackson, I.C.S. ; representing the Royal Society of Edinburgh, Colonel Bannerman, I.M.S. ; repre-

senting Bengal, Principal Haraprasad Shastri, Mr. S. E. Hill and Mr. T. H. Holland ; while the Rev. D. Abbott represented the American Oriental Society.

Dr. Bhandarkar on behalf of the Royal Asiatic Society said :

YOUR EXCELLENCY, LADIES AND GENTLEMEN,—I have now to act a part for which nobody can be more unfitted than myself. I have long been a Member of this Society, have identified myself with it, and in speaking of it use the pronoun of the first person. But I have now to address a few words to the Society as a delegate of the parent Society, of which also I have been an Honorary Member since 1875, and it is possible in speaking to it I may use instead of the second person, the first to which I am accustomed. I will, however, try to keep to the character I assume. The parent Society has every reason to be proud of the Bombay Branch, as must have been rendered apparent to us all by the several papers read to-day, giving an abstract of the work done by the Branch during the hundred years of its existence. And there are hopes that the same kind of work will continue to be done during the years to come. For several young men of energy, endowed with the capacity of making original research, have been coming forward. About twenty-two years ago when I was in Bombay, there was not a single Parsi scholar who contributed to the journal of the Society. Since that time there have been several. Young Hindus also have been doing valuable work. And to all these young men I may say that the phrase " Republic of letters" is not an empty phrase. Whoever the writer may be, a Hindu, a Parsi, a Mahomedan, or a Christian, a man well-known or little known, his work will be acknowledged by the great scholars of Europe, provided it is really good work, provided he has handled his subject like a true critical scholar. And the parent Society has not been slow in honouring those who deserved honour. And the success of a Society such as this depends a good deal on the sort of Secretary it possesses. A good many years ago the parent Society did not show much activity, as it had for a long time no good Secretary. But since Dr. Rhys Davids was appointed to the place, the work done has been considerable, and it has been done regularly and methodically. Every quarter we get punctually a part of the journal containing valuable articles and interesting and important correspondence ; and the cause of research has greatly advanced. This branch has fortunately got a similar Secretary in the Rev. Mr. Scott ; and it is to be hoped that he will continue to hold that position till the time comes for him as it must to every European to depart from the country. His endeavour will of course be as it has been to induce men to study questions and write out the results of their study to be laid before the Society and

published in its journal. And when articles are sent in, the Secretary will have to decide which are fit to go forth in the name of the Society. There is one danger, however, to which the Society, as a body of men engaged or interested in original research, is exposed. And that comes from the fact that it possesses an excellent library not only for the scholar but for the general reader ; and books interesting to the latter are constantly purchased. There are a great many men who value the Society for this reason only, and this circumstance is likely to draw away the attention of members from the original object. That is a danger to be guarded against. There is, however, enough in the circumstances by which we are surrounded to justify the hope that the success of the Society as a learned body will continue unabated.

Mr. T. H. Holland on behalf of the Delegates from the Bengal Branch said : We have been empowered by our President and Council to convey the sincere congratulations of the Asiatic Society of Bengal to the Bombay Branch of the Royal Asiatic Society on the celebration of the hundredth anniversary of its foundation.

Being the oldest amongst the many Societies now existing for the study of Oriental Literature, Science and Art, and the natural parent of the Society with which you have been affiliated since 1827, the Bengal Society appreciates with parental pride the great work which has been done by you in Bombay, especially in branches of research for which your Geographical position has given you peculiar advantages, and which were beyond the range of those resident in Bengal before means of communication reached their present stage of development, and enabled those stationed on the east side of the country to freely explore the Western Presidency and the adjacent parts of Asia having political relationships with India.

Our fellow members in Bengal desire us to express the hope that this meeting will be the beginning of a more perfect correlation of the work done by the two Societies, and we think we correctly express the general feeling of our Society in uttering the hope that the natural relationship produced by your affiliation with the eldest of our offspring in Europe may be recognised by closer sympathy in our work in this country, where, naturally, the functions of an Asiatic Society find their fullest scope and opportunity.

The business being now concluded, and a gift of Rs. 250 from Sir Cowasji Jehangier having been announced, Sir Bhalchandra Krishna Bhatavadekar rose and moved a hearty vote of thanks to His Excellency the Governor for presiding. He said :

LADIES AND GENTLEMEN,—I rise on behalf of the Committee of management to propose a hearty vote of thanks to His Excellency the Governor for presiding on this occasion. It is not a mere conventional

vote of thanks, but a very genuine and cordial one, because you are aware, ladies and gentlemen, that His Excellency returned only yesterday from a very interesting but arduous tour, in the province of Sindh where he must have had an opportunity to see the condition of the poor ryots, there, and in spite of the worry and fatigue of the journey His Lordship cheerfully condescended to come and preside at this *Conversazione.*

Ever since His Excellency assumed the high office of Governor of Bombay he has taken a very keen interest in the different Institutions of this City and the presidency. This is a historic occasion as was well described in his very learned paper on the History of the Society, read by our indefatigable and energetic Honorary Secretary the Rev. Mr. Scott, before the Society only yesterday.

By his presence here to-night His Excellency has given a stimulus and encouragement to the disinterested workers in the field of Literature, History, Archæology and Science.

The name of Sir James Mackintosh is gratefully remembered by the public in general and the Society in particular and the name of Lord Lamington will also be gratefully remembered by posterity.

With these few observations I beg to propose this vote of thanks.

This motion was seconded and put to the meeting by Sir Jamsetjee Jeejeebhoy, Bart., and carried with acclamation. His Excellency replied at some length. The National Anthem was then given on the Organ, being played by Major Jennings, whereupon the meeting was dissolved.

2.—*History of the Society.*

By Rev. Prof. R. Scott, M.A.

To-day we associate ourselves with the past and the future by commemorating the centenary of the foundation of this Society. Individuals pass ; institutions remain. And when they too perish purposes abide. Our aims are not those of a class or age ; they pertain to universality, arising as they do from the exercise and efflorescence of active beneficent intellect contemplating this Eastern world. It may be that our explorers are few and our achievements small. We cannot rival the great Societies of Europe. On the gilded surface of this glittering orient, life is hurried and changeful ; and the more gifted spirits are denied the luxury of learned leisure. Yet even here are some who wish to leave their footprints. And there are many who, if living for the present, desire to enrich that present with whatever tends to keep the mind and soul alive. For such this Society is a meeting point where books, the life-blood of master-spirits, are stored and where intellectual workers may mutually encourage one another in the study of the peoples of this continent and in the attempt to compel its soil and its stones to reveal movements of ages of the distant past. Some of us would have wished to see on this occasion not only a local celebration, but also an international Congress of Scholars. But the gathering of such an assemblage from Europe and America and the Farther East is a regal or viceregal task, and for the present the Imperial revenues are otherwise required. Let us announce the hope that at no distant date provision will be made whereby a chief city of this Empire may take its place amongst the learned centres where congresses of Oriental research are successively held. A century is divisible into three generations. And perhaps, as our history has been one of evolution into something different from the original design, even as India itself in its government and intellectual life has been passing through a ceaseless development, I may divide my subject by endeavouring to describe for you three stages of our growth. Let these be prefaced by some account of the foundation, and concluded by a reference to the situation and the needs of this hour.

James Mackintosh, the founder, was born near the northern capital of Inverness in 1765. In 1780 he proceeded as a student to Aberdeen. That city in those days boasted of the same number of universities as

England had, as to-day with more substantiality it may boast of university buildings scarcely surpassed in any land. Mackintosh attended both universities, King's and Marischal, and was at once marked out as a youth of high promise. The most interesting feature of his college career was a warm friendship with a student of intellect equal to his own, who came from England, Robert Hall, a youth whose pure and noble spirit made him the loftiest of England's pulpit orators. Mackintosh, in words recently used by one great statesman of another, said he could not help liking him. Together they walked by the banks of the Dee and the Don and along the shore of the Northern Sea. Together they read the ancient classics and discussed the modern philosophy. These discussions, Mackintosh testified, were the best education of his life. Hall in turn recorded his opinion that his friend had the most Baconian mind of recent times. Their individual characteristics were fully shown in those early days. Fellow-students called them Plato and Herodotus. When I was in the same region ninety years later traditions still lingered of this noted twin-brotherhood, this Castor and Pollux of a northern sky.

Mackintosh went to Edinburgh to study medicine, and his mind was further enlarged by contact with the galaxy of intellect in that Athenian city. But like the present Attorney-General he turned from medicine to law, where he judged there would be freer scope for an intellect which found its chief delight in historic and philosophical investigation. Soon he became publicly known by a plunge into the French Revolution Controversy, when he crossed swords, not unsuccessfully, with Burke, whom nevertheless he acknowledged as his intellectual master. By the year 1803, when he was appointed to Bombay, he was recognised as one of the most philosophic of lawyers and one of the most eloquent of thinkers that England had known. But his party was without power or prospect. As a man of integrity he refused the offers of compromise made to him from the side of Pitt, and in these circumstances he accepted the position of chief judge in Bombay. Scarcely had he landed when he regretted his choice. But for 7½ years he laboured strenuously in official duty and general study. Afterwards he was a distinguished Member of Parliament, and through long dark years he and Romilly pressed courageously for the revision and reconstruction of the Criminal Law, a policy which was at last adopted and carried through by Peel in his memorable tenure of the Home Office. Finally he obtained office in the Reform Ministry of Earl Grey, but full recognition was prevented by the hand of death. Sir James brought with him the idea which took shape in the founding of this Society. He desired something similar to the Asiatic Society of Bengal, founded by a distinguished Oriental scholar, Sir William

Jones, twenty years before. But he was guided more by his own inquisitive mind and his experience of literary and philosophical societies at home. His object was to bring together and to unite in high intellectual purpose and effort the abler Englishmen variously engaged in work in this Presidency. He lived in the Government House at Parel, and in that building, now consecrated anew to Science, the first meeting was held round his table on Monday, the 26th November, 1804. This meeting was attended by seventeen persons, of whom two were globe-trotters. But others at once joined and the original membership stood at about thirty. They called themselves the Literary Society of Bombay, and agreed to meet on the afternoon of the last Monday of each month, producing and discussing a learned paper as often as they could. The Society had thus two sides, a social and an intellectual. Its members formed a select circle of high placed Europeans who met together for mutual friendship as well as for "the feast of reason and the flow of soul." The idea on the intellectual side, as expounded by Sir James, was to investigate and bring together what could be discovered of the East, so as to form a contribution to the thought and learning of the West. Studies, according to the old division, would be either physical or moral, pertaining to Nature or to Man. The former would include the geography, the geology, the botany, the zoology, the mineralogy, and the meteorology of this continent and the adjacent countries or seas; the latter, all that concerned its peoples—their races and languages, their history and antiquities, their religions and customs—in short their life and thought, so far as that thought and life was ascertainable to Englishmen. Sir James was, of course, elected President. Mr. Charles Forbes, whose statue still stands in this building, was made treasurer. Mr. W. Erskine, a lawyer who came out with Mackintosh and who won distinction as an Oriental scholar, was Secretary. They were, of course, all Scotsmen, as was the Governor, Jonathan Duncan, and the two most famous of his successors, Mountstuart Elphinstone and John Malcolm. Others of the company were General Nicolls, the Commander-in-Chief; Major (Sir Jasper) Nicolls, who contributed papers on the temperature of the island, and was afterwards Commander-in-Chief in Madras; Col. Boden, of Oxford fame; Col. Harris; Major Moor, author of the "Hindu Pantheon" and other Oriental works; Helenus Scott, the head of the Medical Department, a man of literary tastes; other two doctors and two lawyers, one of whom was Thriepland, the Advocate-General. Amongst those that joined after the first meeting were other four military officers. The globe-trotters were Lord Valentia and his friend, Henry Salt, afterwards Consul-General of Egypt, both of whom won distinction by the publication of their Travels.

The First Generation.

At the fourth meeting (25th Feb. 1805) steps were taken for the purchase of a large collection of books, already in Bombay, the property of some medical gentlemen; and the accomplishment of this design procured the nucleus of the great library we now possess. It is interesting to mark that the foundation of a library was the first important achievement of the new Society. Mackintosh was a man of ideas. He threw out schemes and suggestions and he had a singular power of stimulating others, for to his instigation or inspiration we owe the literary works of Elphinstone and others of that generation. At least three public proposals of his belong to the first two years of the Society. One of these was with a view to a Statistical Account of the City and Island, for which he drew up a list of questions (such as are now put) for the eliciting of full economic information. Another was a scheme for a Comparative Vocabulary of the various languages, dialects and forms of speech in India, and in it he showed himself abreast of the knowledge of his age regarding the infant science of Philology. A third was with a view to the translation into English of Oriental classics. On this subject he addressed the sister society of Bengal, with a view to co-operation. In Bombay the money or the means was wanting. The Calcutta friends responded sympathetically, and after some time published on their own account some minor Indian works. A generation later the idea was promoted in Europe; and we now possess in English a library of Sanskrit and Oriental literature. Sir James did not see the full accomplishment of any of his designs. He was before his age; but here, as later at home, he had at least the satisfaction of knowing that he was sowing seed though the harvest was to be for others. For herein is the saying true: "One soweth and another reapeth." At the end of 1811, weakened in health, he returned to England, leaving to this Society an example, an influence and a memory. In 1815 the museum was founded. It was designed to be a museum of Indian antiquities and of specimens of natural history. The initiative was largely due to a man once famous as an explorer and a writer of many books of Travel, Captain Basil Hall, of the Royal Navy, who himself presented a collection in mineralogy. And, indeed, during the next half century the scientific side is quite as prominent as the literary. It was in 1815 that the first step was taken towards an astronomical observatory for the city. In that year the Society received from Mr. W. T. Money, the retiring President, a gift of a transit-telescope; and thereafter with the assistance of Rs. 2,000 from Government an observatory was erected somewhere in this neighbourhood. After seven or eight years the whole thing was handed over to Government, who undertook the appointment of a Superintending Astronomer.

The subsequent history of the Bombay Observatory and its location in Colaba is outside the scope of this paper, but I may mention that papers founded on observations there made were read before this Society, especially by Dr. Buist, who contributed observations on the comet of 1843, on the eclipse of 21st December 1843, a comparison of Nine Barometers, and meteorological observations. It may be of slight interest if I add that it is mentioned in the autobiography of Alexander Bain, just published, that later in the forties he was nominated by the Court of Directors for the post of astronomer here. Owing to local circumstances the appointment, which might have altered the history of psychological thought, fell through. As yet and for long after, the Society had no journal. Many valuable papers had been read and were in danger of being entirely lost. A movement was set on foot in 1815 by which as many as possible of these papers were brought together and sent to England for publication. In 1819 these were published in three volumes, under the title of "Transactions." In these still interesting volumes Mr. Erskine, who remained Secretary for twelve years and who afterwards published works on Indian history, has five papers on subjects as various as Elephanta, Zoroastrianism, and Buddhism. He was succeeded as the moving spirit by Captain (afterwards General) Vans Kennedy. This scholarly officer was Secretary during the eight years when Elphinstone, the Governor, was President. In 1831 he himself became President, and when he retired in 1835 he was declared Honorary President, an honor which he shared with other two, the first President, Mackintosh, and his own successor, Dr. Wilson. Kennedy's papers in the "Transactions" are six, and are mainly on Persian literature and history. He was the author of books on Hindu mythology and on Indian languages, and he published various essays dealing with the literature of Hinduism. Wilson eulogised his exposition of the philosophic systems and called him "our distinguished ornament." He was by no means the only military officer who in those days took an active interest in the Society. General Briggs, afterwards Resident at Satara, well-known as the translator of Ferishta, was amongst the contributors. Captain McMurdo, whose early death was deeply regretted, wrote on Cutch, when he held the office of Resident; on Kathiawar and Sind, and on an earthquake. Major Price was a member who afterwards became a well-known author. Colonel Sykes, who had a long and interesting career, in the course of which he became President of the Royal Asiatic Society, contributed papers on Antiquities; Captain, or General, Carnac, who became Resident at Baroda, and after retirement returned to Bombay in 1839 as Governor, contributed a paper on the famine in Gujarat in 1812 and 1813. I have already mentioned some of the older officers who took part in the foundation. The list

may be concluded with the name of the most eminent and remarkable of all, the immediate successor and not unworthy rival of the most cultured of all our rulers, as Mountstuart Elphinstone may be called—I mean Sir John Malcolm, the soldier-administrator who became a resident of this city only when appointed Governor, but who at the instigation of Mackintosh first took up the pen by which he wrote the History of Persia and other voluminous works, winning, without the advantage of original education and by the sheer force of irrepressible talent, success in a third sphere no less difficult than government and war. In 1831 the Society found rooms in this building, to the erection of which it contributed Rs. 10,000. This account of the first generation may be concluded by a reference to the change of name and, to some extent, of position, which took place while Malcolm was Governor. The Royal Asiatic Society was founded in 1825. This Maiden at once received the honours of maternity, and was hailed as the parent society, the mother of its older branches. In 1827 overtures came from London; these were referred to a committee, and in the beginning of 1829 the union, such as it was, was agreed to. The Literary Society became henceforth the Bombay Branch of the R. A. S. It preserved complete autonomy in its local administration and funds. It was resolved "that members of the Bombay branch while residing in Asia shall be non-resident members of the Royal Asiatic Society; and when in Europe shall be elected resident members in the same manner that honorary members are elected." For the majority this now means nothing. But between 1830 and 1840 many papers read in Bombay were published in London. Some of our members, such as our Secretaries Dr. G. Birdwood and Dr. Codrington, have passed from an active interest in the one to an equally active interest in the other. At this moment the President of the R. A. S. is Lord Reay and one of the Vice-Presidents is Sir Raymond West, and many of the leading members are cordially interested in our celebration.

The Second Generation.

The second generation of our Society, covering the mid-period of the Nineteenth Century, may be dated roughly 1835 to 1865. In the first half of this period the Society possessed an exceptionally large number of able members. It was a period of fresh investigation in many spheres, and the journals indicate a varied intellectual activity. On the scientific side these four may be specified: Dr. Buist, brilliant both as a journalist and a scientist, who edited the "Bombay Gazette" and conducted the Meteorological Observatory and wrote also on geology and other subjects; Professor Orlebar, of Elphinstone College, who wrote chiefly on geology; Dr. J. G. Malcolmson, a botanist, whose early death was

deplored; and Dr. H. G. Carter, a surgeon, who held the office of Secretary for 15 years, and wrote voluminously on medical and natural history subjects. On the literary side the writers were many. One series of discussions concerned the monumental Sanskritic inscriptions, which for the first time were deciphered, with investigations of rock-temples and the meaning of their sculpture, and with study of the mutual relations of Brahmanism, Buddhism, and Jainism. Others discussed the language, religion, and history of Persia; and over the mysterious Zend and Pehlevi warfare raged until the questions were more or less solved by European scholars, some of whom visited the East and were associated with our Society. Others, again, concerned themselves with the living languages of the Presidency, including the speech of hill tribes. At other times the subject was history or antiquities. Amongst the writers we may specify Dr. Bird, a Secretary, who wrote on Inscriptions and Religions and also on the Ethiopian languages; Professor Eastwick, who translated from the Persian; Sir Erskine Perry, who wrote on history and languages; Sir Bartle Frere, who wrote on antiquities; Sir Henry Rawlinson, who contributed a paper on Babylonia; General La Grand Jacob, who wrote chiefly on inscriptions, in which he was associated with the Danish scholar Westergaard. To these should be added three Doctors of the Scottish Church—Stevenson, Wilson, and Murray Mitchell. The conjunction of so many men led to the establishment of the Society's Journal. During the thirties many papers were sent to the parent Society's Journal and others were published elsewhere. In 1841 the new Journal began, which was at first meant to be quarterly and afterwards half-yearly, but which, save for extra numbers, we have been able to issue only once a year. In this publication will be found a brief record of the proceedings of the last sixty years and also most of the papers that have been read during that time. Dr. Stevenson, who was President 1852-55, contributes more than twenty papers, chiefly on the Vernaculars and Brahmanism, and cave inscriptions and ancient religious practice. But the foremost name in the history of our Society is that of Dr. John Wilson, according to James Douglas the greatest of all Bombay men. In a sense he was co-eval with our Society, for he first saw the light in December 1804, a century and a month ago. His first period of literary activity, when he contributed to this Society four or five papers a year, was over before our Journal began; but the substance of them appeared elsewhere, in journals or in books, of which his work on the Parsi religion, 1842, was considered the most important. In 1835, on the retirement of Vans Kennedy, the young missionary, only 30 years of age, was called to the Presidentship which two eminent Governors had held. For already he had won distinction, as a student of Sanskrit and of Zend, and as an expounder of ancient religions. And like Mackintosh he had a genius for influenc-

ing others, a power of suggestion and stimulus and guidance. In January 1836, he delivered an inaugural address, which was published in the Calcutta Journal, then edited by his friend Prinsep, and which contains a description of the situation at that time. Later, on the 20th July 1839, he recapitulated before Carnac, the then Governor, the objects of the Society's inquiries. Briefly they were: "What are the physical aspects and produce of the country? What are the monuments and record of its history? What is the intellectual, moral, and economic condition of its tribes? What are its languages in respect of origin, structure, and style? What are its religions in principle and practice? What is its civil and criminal jurisprudence?" Again, in December 1842, on the eve of furlough, he gave a summary of the work accomplished. Later, in 1855, he read, Lord Elphinstone being present, a valuable review of the present state of Oriental, Antiquarian and Geographical Research connected with the west of India and the adjoining countries; and still later, in 1870 and 1873, he reviewed the situation. He also summarised the work of Erskine and of Elphinstone. For 45 years Wilson was proud to be a member of this Society and the Society was proud of him. His senior colleague, Mr. Nesbit, who surpassed him in the knowledge of Marathi was philosophic in his tastes and took no part here. His junior colleague, Dr. Murray Mitchell, who only three months ago, in his 90th year, laid his armour down, wrote on Tukaram, translated Marathi poetry into English verse, and contributed papers on the Vedas and Zend Avesta.

In 1837 we find the Society co-operating with the Royal Asiatic Society in respect of Indian products in commerce and arts, and collecting numerous specimens, which were forwarded to London. In the successive years 1846, 1847, and 1848, it was approached by Government for assistance in special schemes. The first of these occasions was with a view to a census and statistical account of the city. The Society collected statistics of homes but disadvised the taking of a complete census, which, however, the Government attempted, with imperfect success. Next they desired suggestions with regard to the scientific aspects of an intended expedition to Central Asia. The Society communicated a list of subjects regarding which information was desirable. In 1848 proposals regarding archæological and antiquarian research were submitted for the opinion of the Society. In replying they called special attention to the cave temples of Western India, and offered to conduct investigations. Out of this arose Wilson's two memoirs on the cave temples and monasteries and other ancient Buddhist, Brahmanical and Jain remains of Western India. One of the changes that took place gradually in this period was the introduction of native members. This was a natural consequence of the growth of education in the coun-

try, but it involved a considerable departure from the original design. The first admitted was a Parsi (in 1840) Mr. Maneckjee Cursetjee. Later the change proved important both with regard to scholarship and liberality of donation. One of the first Hindu scholars was Dr. Bhau Daji, who wrote many papers on Sanskrit literature, and on inscriptions and history. The Bhau Daji collection of MSS. is one of our treasured possessions. Of still earlier date was Gangadhar Shastri Bal, who wrote on inscriptions and copper-plate grants. Somewhat later was the Rao Sahib Mandlik, a Vice-President, who in 1877 re-edited the original "Transactions." In 1863 and 1865 liberal gifts for the library were received from Messrs. Jagganath Sankersett, Mr. Cowasjee Jehangir and Mr. Premchand Roychand. By this time the library had assumed large dimensions. New books had been purchased annually, and books and MSS. had from time to time been received from Government. In 1844 a testimonial to the Secretary, Malcolmson, amounting to Rs. 2,700, took the shape of books in the department of Natural History. Similar additions have been made in recent years, such as the Raymond West collection. The decade of the fifties was one of trouble in the British world with its wars in the Crimea, in Persia, in India, in China; and there seems a certain slackening of intellectual effort. The race of literary Generals became well nigh extinct. Great changes took place. A single year saw the foundation of the University and the close of the East India Company's long career. Energies that might have been bestowed on this Society were diverted into other channels. Archæology is a case in point, where the resources of Government secured the continuous and successful labours of Fergusson, Burgess and Cousens. Dr. Burgess is still an onlooker, as is also another distinguished writer of the sixties, Sir George Birdwood, who made contributions on natural science and industrial work.

In 1865 the Society was addressed by Dr. David Livingstone, and it may recall to us something of the liberality of a past generation, the large-minded generosity of our fathers, when I add that at that time, when the population and its wealth were so much smaller, a sum of Rs. 6,450, worth then about £1,000, was collected, through the influence of this Society, to aid the great missionary in his African exploration. During this period the city had grown rapidly, and the question arose whether the library, which at first was mainly a learned collection, should also have a popular side, and endeavour to meet the tastes of the general public; or whether in this latter respect it should not resign its functions to a new circulating library. The Society, fearing to be left high and dry, has adapted itself to the times and provided a large element of light literature, so that though other libraries have been

founded our membership has continued to increase. But the gain from the increase has been neutralised by the reduction of the subscription from Rs. 100 first (in 1874) to Rs. 75 and now to Rs. 50. In these reductions may be seen a relaxing of the aristocratic idea, with any loss of dignity counterbalanced by enlargement of usefulness. But the fact that the Society has not been seriously affected by financial difficulty must be attributed to the Government grant, sanctioned by the Secretary of State in 1864.

The Third Generation.

The last third of the Nineteenth Century differs greatly from either of the two preceding. It is now the India governed directly by the Crown. The work of public officers becomes more various and detailed and mechanical, and thus affords less opportunities of leisure than seem to have been formerly enjoyed. At the same time new facilities of travel have made furloughs far more frequent and have thereby interfered with continuity of observation and study. On the other hand, a new race of Indians has been issuing from the halls of the Universities, prepared to take up and extend the work hitherto undertaken chiefly by Englishmen. Foremost amongst these as members of our Society were Messrs. Telang and Bhandarkar, both of whom began to contribute about 1871. The former in his short life received the recognition of being elected President. The latter, to our great gratification, is with us to-day, and around him are other able native scholars. Alongside of these two was Dr. Indraji Bhagvanlal, who wrote many papers on inscriptions and antiquities. In the seventies the most voluminous contributor was Mr. Rehatsek, a retired scholar of a remarkable type, whose papers touch almost every aspect of Oriental history. The Secretary, Dr. Codrington, wrote on Coins; Dr. Lisboa on Plants. From the Civil Service, the most important assistance came from Mr. Fleet, who, if I mistake not, preceded in office (as Collector of Belgaum) as well as in Sanskrit scholarship our present esteemed contributor, Mr. Jackson. Mr. Fleet wrote on Canarese as well as on Sanskrit inscriptions and contributed many papers on copper-plate grants. Two European Professors of Sanskrit, Drs. Bühler and Peterson, wrote papers on Sanskrit literature, and also described in detail, in extra numbers of the Journal, their search for MSS. The latter, whose literary culture and whose command of lucid and incisive English won general admiration, was for some years Secretary, and at the close of his life held the President's chair. Another, who also was taken from us too soon, was Dr. Gerson Da Cunha, a scholar of varied attainments, our chief authority on Numismatics and the author of a History of

Bombay, which is one of the most valuable of our publications. Early in this third period the Society received an enlargement by the incorporation of the Geographical Society. This body had been instituted in 1831 in connection with the Royal Geographical Society. In those days there was large scope for such a Society's investigations, and to the examination of obscurer parts of India and its frontiers or neighbourhoods were added the labours of officers of the Royal Navy. These officers were at length withdrawn and sufficient work was no longer found to justify the existence of a separate Society. Accordingly, in 1873, the amalgamation was effected. We have still amongst our members some (or at least one) who entered by the door of the Geographical Society. On the other hand, we have seen arise and flourish outside us, a keen and vigorous Natural History Society. But perhaps in days to come its members may seek closer union with this more ancient and general institution. One more Society, the Anthropological, lives under our shade, for it stores its books and holds its debates within our walls. A separate branch of our work is Numismatics. In the middle of the century we received many presents of coins, especially from Captain Bruce, who was Resident at Bushire, and Captain Grant, a naval officer. Unfortunately most of these were lost. On the retirement of Mr. Frere, in 1864, his valuable coins were bought for us. Others were given in 1867 by Kathiawar princes. At present, under Government orders, we receive specimens of new discoveries, as they are made. Our collection will therefore increase in value and be an important aid to the student of Indian History. It would be wrong to conclude this part without an acknowledgment of the assistance derived from Civil Officers of the Crown. If in the Company's days we owed most to Generals, in more modern days our obligations are greatest to those that have climbed the heights in Civil Government. By such, almost exclusively, the office of President has been held since 1843. These include Judges of the High Court, such as Justice Newton, and more recently, Sir John Jardine and Sir Edward Candy; Judges who have passed into the Governor's Council, as Sir Raymond West, Mr. Tucker, Mr. Birdwood and Mr. Fulton ; other members of Council, as Mr. W. Frere and Mr. Gibbs. Prominent amongst these as benefactors we may distinguish Mr. W. Frere, who was President both of this and of the Geographical Society, and Sir Raymond West, an ideal Chairman, who presided over the Society for twelve years. Not inferior to them in sympathetic interest and ready help is the present President, the Hon. Mr. E. M. H. Fulton, without whose encouragement and support this commemoration would not have been held.

Sometimes we hear a little way off the shrill note of the critic, the croaker, or the candid friend, which tells us that we are not now what

we once were. It may indeed be true that we are living in a degenerate age. Originality is not made to order. But whatever our shortcomings are the fact is that to-day our membership is larger and the general work is greater than ever before. And further, if it were true that we are accomplishing less of valuable investigation, the change need contain no reproach. In earlier days the Society was a pioneer Institution in a free field. It marked and prepared ways where others have walked. The examination of the races, customs and population of our provinces and districts is now carried on by Government and many huge volumes testify to the laborious investigations of civil officers. The study of the ancient languages of India and of their development into present day speech is the work of the University, now nearing its jubilee ; and to the same body, in its arts, science, and medical faculties belong the various branches of Natural History. And on a wider basis than Colleges is the Department of Public Instruction. Meteorology is a department of Government. So also, and in active exercise, is the department of Archæology. If our children have out-grown us let us rejoice. On their work we will not encroach. And yet in one and all of these departments there is scope for extra-mural or extra-official study, for enterprising curiosity and post-graduate research, for the examination of neglected corners and the discovery of unsuspected fields. And every worker, inspired by zeal of knowledge or attracted by gleams of hidden truth, will find here a point of vantage to aid him in his search. At this moment the question of the possession of a Central Museum of Antiquities, Natural Science and Industries, such as may be worthy of the city, is asserting itself, and Bombay is feeling the reproach that it is in this respect behind other parts of the Empire. Such a museum is necessary for the University student, for the antiquarian, for the enterprising industrialist. The matter is far beyond our means. But when the new building is erected and equipped we shall hand over to it the specimens which during the past century have been entrusted to us. What then shall we possess? We have many ancient MSS. and often send in loan to scholars in India and in Europe. On coins, as they are discovered in the country, we report to Government and thereafter distribute them among Institutions that preserve them. We have our own growing collection, and several of our members are students of numismatics. Other interesting relics of antiquity outside the category of the text-book we will continue to treasure. In our reading-room nearly every important periodical of Britain or India—whether of literature, or science, or art, or even sport—will be found. Here ladies and gentlemen who spend one or two hours a week at these tables may keep in closer touch with movements of thought and life in Europe. Our library will soon contain the round number of 100,000 volumes. They are new and old, big and little, learned and popular,

technical and pictorial, grave and gay ; works of science and of fiction, of history and poetry, of philosophy and art ; books of war and peace, of the triumphs of thought and industry, and of all the round of human enterprise and passion. For a great library is a concentration of energies in a thousand spheres of thought. What then do we wish? That in these respects we should be better known and appreciated ; that young men of the city should twice or thrice a week forego an hour of amusement, or even of idleness, for quiet studious reading ; that from the afternoons of fashionable excitement ingenuous minds should seek the occasional variety of a tranquil retreat ; that every man in the Presidency who desires to be deemed a man of culture or who aspires to a knowledge of the intellectual activity of his time should, as a matter of course, be a member, not only for calculable benefit to himself but for help to others and for the recognition of the brotherhood of letters. Let us, the citizens of Bombay, be a larger, brighter, happier community ; let our intellectual activity and our artistic discernment increase more and more. As to our externals we have good reason to thank Government for rooms in this historic building and for a liberal grant. This Town Hall, with its spacious central hall and its stately Grecian columns, is a worthy monument of a past age, in which for generations the city will rejoice. And yet it is possible for us to outgrow the limits wherein we have been for three-quarters of a century, so honourably housed. Already for our library we have neither the space nor the light that we should desire.

A Look into the Future.

Let me refer then to proposals of the future. We expect, under the fostering patronage of H. E. Lord Lamington, a new Museum, archæological, industrial, scientific. At the same time a new library is projected, a library of reference for the business men of this commercial centre. We have beside us an active Natural History Society, still fired with primitive ardour. And we have an inactive library of the University expensively housed, fantastically cased, very partially used. One suggestion is that this great building, which is now off the main thoroughfares, should be handed over for the Museum, while a new public hall and new library buildings should be erected on suitable sites. A city hall, built acoustically, in a central locality, near the Queen's statue, would be a great boon. Then on the Crescent, besides the King's statue, the new libraries might stand side by side ; the Asiatic Library serving its present purposes in an enhanced degree, beside it the Reference Library of the men of business and administration, and not far off the Educational and Philosophic Library of the Univercity. Were this accomplished we might ask Government to appoint from

Europe a superintending librarian who would teach us modern methods of business and might promote the circulation of books in the city and the regulation of libraries in the Presidency. But to return. We are primarily not a library and museum but a Society, called into existence to promote investigation and offer a humble contribution to the sum of truth. Across a gulf of time and with the gathered riches of a great century that has rolled between we assert our identity with the Society that consecrated its infancy in the drawing-room of Sir James Mackintosh in November, 1804. The kinship that unites us with each other and with three generations of intellectual workers in this city rests on the nature of the common mind of freeborn men. Man's dignity is the dignity of mind. To possess knowledge is the birthright of all. To discover, to increase, and to diffuse knowledge is the purpose of our Society's existence. Therefore we address ourselves to the younger generation of scholars, whether from Europe or from our local Universities, reminding them that learning if less remunerative than public success is deeper and more enduring; and if it does not bring immediate reputation it may build a monument more admired and honourable. Therefore no one should be guided by the present only, but all should give to their best talent its fullest scope. Truth even if it is in the mines is there to be dug out. Through the thick coverings it casts its own gleams; nor should it be neglected for all the diamonds of Kimberley. The aims of a Society such as this, representative, permanent, intellectual, transcend the meat and drink of common life and are not determined by the conveniences of the hour. Thus we have no fixed, exhaustible programme. Nothing pertaining to man is alien to us, but our sphere is Asia; and especially the region of which this city may be called the centre, extending from the Persian Gulf to the Bay of Bengal and from Arabia to the Himalayan heights. With all intellectual movement therein it should be our ambition and our privilege to co-operate. Gladly should we learn and gladly teach. But our higher aim is to be pioneers, guiding the world's workers into new harvests of knowledge. Let us be conscious of our position and our inheritance. The true leadership is in thought, the most precious discovery is of truth, the most honourable labour is that which produces spiritual food. As to-day we contemplate the triumphs of the past, seeing knowledge diffused where darkness reigned, and witnessing reform in a hundred spheres of practice we think with pride of the impulses derived from members of this Society—from Mackintosh and Elphinstone and Wilson and many others of the past, and some that are with us now, who have been discoverers, teachers, or torch-bearers. Shall we not enrich our own minds with the inheritance of the years, shall we not endeavour to extend the conquests of truth and to enlarge the circle of enlightenment, and shall we not make easier for our successors the

gathering of an ever-increasing wealth of intellectual possession and the attainment of a completer spiritual freedom? If we do so then through the years to come this Society will remain as a home of the inquiring spirit; and within it children will arise able to throw a fuller and a brighter light on the mysteries of this ancient land and the vexed problems of its peoples, and to tens of thousands it will become increasingly clearer that in the midst of our many temples there stands one not made with masonry, a shrine of learning, the Temple of the mind, on whose white altar of Truth the sacred fire of Knowledge will never cease to burn.

3.—*Lists of Presidents, Secretaries and Honorary Members.*

Presidents.

1804—Hon'ble Sir James Mackintosh, Kt.
1811—Dr. R. Stewart.
1813—W. T. Money, Esq.
1815—O. Woodhouse, Esq.
1819—Hon'ble Mr. Mounstuart Elphinstone.
1827—Sir John Malcolm.
1830—John Romer, Esq.
1831—Lt.-Col. Vans Kennedy.
1835—Rev. John Wilson, D.D.
1843—Hon'ble Mr. G. W. Anderson.
1846—Hon'ble Mr. L. R. Reid.
1849—Hon'ble Mr. J. P. Willoughby.
1852—Rev J Stevenson, D.D.
1855—Hon'ble Mr. W. E. Frere.
1864—Hon'ble Mr. Justice Newton.
1869—Hon'ble Mr. H. P. St. Geo. Tucker.
1875—Hon'ble Mr. J. James Gibbs.
1881—Hon'ble Sir Raymond West.
1893—Hon'ble Mr. Justice K. T. Telang.
1894—Hon'ble Mr. H. M. Birdwood.
1895—Hon'ble Mr. Justice John Jardine.
1897—Dr. P. Peterson, D. Sc.
1900—Hon'ble Mr. Justice E. T. Candy.
1903—Hon'ble Mr. E. M. H. Fulton.

Secretaries.

1804—William Erskine, Esq.
1815—W. A. Morgan, Esq.
1817—Dr. J. Taylor.
1819—Capt. Vans Kennedy.
1827—Capt. G. R. Jervis.
1830—R. C. Money, Esq.
1833—W. E. Frere, Esq.
1835—Col. T. M. Dickinson.
1836—J Fraser, Esq.
1837—Professor Orlebar.
1842—J. G. Malcolmson, Esq.
1846—James Bird, Esq.

SECRETARIES—*contd.*

1847—Dr. H. J. Carter.
1862—Dr. G. C. M. Birdwood.
1868—James Taylor, Esq.
1874—Surgeon-Major O. Codrington.
1878—W. Martin Wood, Esq.
1882—Surgeon-Major O. Codrington.
1885—Dr. P. Peterson.
1889—Hon'ble Mr. Javerilal U. Yajnik.
1897—Rev. R. M. Gray.
1901—Rev. R. Scott.

Note.—Rao Saheb V. N. Mandlik, C.I.E., was Joint Secretary for finance from 1875 to 1881 and Dr. J. Gerson da Cunha for Archæology and Numismatics from 1890 to 1902.

HONORARY PRESIDENTS.

1812—Hon'ble Sir James Mackintosh, Kt.
1835—Major-General Vans Kennedy.
1842—Rev. Dr. John Wilson, D.D., F.R.S.

HONORARY MEMBERS.

1815—Monsieur Asseliende Chirville.
1829—Chevalia Cesar Morean, F.R.S. (Paris).
,, —Monsieur le Baron Sylvestre de Sacy (Paris).
,, —Augustus Wilhlem Schlegel da Bonn.
,, —Monsieur Julius von Klaproth (Paris).
,, —Monsieur Abel Remusat (Paris).
,, —Rev. Dr. Thorne.
,, —Monsieur Antoine Leonard de Chezy (Paris).
1830—Sir J. G. Wilkinson, K.C.I.E. (London).
,, —Dr. Otham Frank.
,, —Signor Mutti.
1831—Hon'ble Sir John Wither Awdry, Kt.
1832—Lt.-Genl. Sir Colin Halket, K.C.B., G.C.H.
,, —Sir Herbert Compton.
,, —Monsieur Garein de Tassy (Paris).
1834—Bishop Pendergast.
1835—Baron Hügel (Vienna).
,, —Dr. A. S. Walne (Cairo).
1839—Professor T. Pavie (Paris).
1842—Professor N. L. Westergaard, K.D. (Copenhagen).
,, —Le Comte Genberg de Homao.
,, —Professor C. Lassen (Bonn).
1843—Rt. Rev. Dr. W. J. Whelan, R. C. Bishop of Bombay.
,, —Monsieur M. Etienne d'Quartremere (Paris).

HONORARY MEMBERS—*contd.*

1845—Le Marquis De Ferriere De Vayer (Secretary, French Embassy, China).

,, —Dr. James Cowles Prichard, M.D., F.R.S., of Bristol.

,, —Dr. Thomas Hodgkin, M.D., F.R.G.S. (London).

1846—His Excellency Monsieur de la Greve (French Ambassador, China).

1848—M. Viscomte de Kerckhove, President de' l'Academie de Archæologie de Belgique (Antwerp).

,, —Monsieur Felix Bogaerts, Professor of History, &c.; Secretary, Perpetual de' l'Academie de Archæologie (Antwerp).

,, —Monsieur Eugine de Kerekhove, Doctor of Laws (Antwerp).

1849—Captain Inglefield, of the Royal Navy (London).

,, —B. Hodgson, Esq., B.C.S. (London).

1850—R. X. Murphy, Esq., Bombay, Marathi Interpreter and Translator, Supreme Court, Bombay.

1855—Rev. R. H. W. Friederick, F.R.G.S. (Batavia, Java).

,, —Rev. John Stevenson, D.D.

1859—E. E. Elliot, Esq., C.S., Bombay (Ladykirk, Berwick).

1860—Dr. Martin Haug, Ph. D.

1862—H. J. Carter, Esq., F.R.S., late of Bombay Medical Service.

1865—Hon'ble Mr. W. E. Frere, C.S. (London).

1866—Sir Richard Temple, K.C.S.I.

,, —Dr. A. Weber (Berlin).

1867—Dr. A. H. Leith, M.D. (London).

,, —J. H. Rivara da Cunha, Esq. (Goa).

1868—Sir G. C. M. Birdwood, KT., M.D., C.S.I. (London).

1869—H. Newton, Esq., C.S.

1874—Monsieur Commentatore C. Negri, President, Geographical Society, Italy.

,, —Professor E. Rehatsek, M.C.E. (Bombay).

1874—Sir Walter Elliot, K.C.S.I. (Wolfelee, Hawick, N. B.).

,, —Dr. Carl von Scherzer.

1875—Dr. Monier Williams, M.A., LL.D., D.C.L. (Oxford).

1877—Surgeon-Major Oliver Cockington, M.D.

,, —Dr. Pandit Bhagwanlal Indraji, Ph.D. (Bombay).

1879—Dr. Rajendralal Mitra, LL.D., C.I.E. (Calcutta).

1883—Count A. de Gubernatis (Italy).

1892—Sir Raymond West, M.A., LL.D., K.C.I.E.

grandson Daśaratha. The work done in connection with these inscriptions has by no means attained perfection yet, and it will require the attention of acute scholars for many a year to come.

Later in date are the inscriptions of a dynasty of princes who called themselves Kshatrapas or Mahâkshatrapas. This, in all likelihood, was a dynasty of foreign origin and belonged to the Śaka race Like other foreigners who came in in later times, they adopted the current Hindu religion and Hindu manners. The name of the founder was Chashṭana, which has a foreign look ; but all his descendants adopted Hindu names such as Jayadâman, Rudradâman, Rudrasena, &c. They were probably worshippers of Śiva, since the name " Rudra" frequently occurs in their names. There are several inscriptions of this dynasty, but the principal one is that of the third prince named Rudradâman. It records the repair of a dam to the Sudarśana lake near Junâgaḍ in the year 72 Śaka corresponding to 150 A.D. A copy of this inscription was first published in Vol. I in the year 1842 by Jacob and Westergaard. A better copy, with a transcript and translation, was published by Dr. Bhau Daji in 1862 in Vol. VII. Another inscription, dated 127 Śaka, of the Mahâkshatrapa Swâmi-Rudrasena, existing on a pillar at Jasdan in Kathiawar, was also published by the same scholar in Vol. VIII. There are several more inscriptions, though they do not appear in our journals ; but the names and dates of the several princes of this dynasty have been chiefly determined by the legend on their coins, which are found in large numbers in Kathiawar. This dynasty was finally exterminated by Chandragupta Vikramâditya of the Gupta race about 310 Śaka or 388 A.D.; and this revolution is indicated by another inscription about the Sudarśana lake mentioned above. The bank gave way again in the time of Skandagupta in the year of the Gupta era 136, corresponding to 454 A.D., and was repaired the next year. The two inscriptions on the Sudarśana lake, therefore, briefly indicate three changes of dynasties from about the year 322 B.C. to 455 A.D. The dam is said to have been constructed originally by Chandragupta Maurya through his Police Officer Pushyagupta, a Vaiśya. The lake was rendered still more efficacious 66 years later by Aśoka, his grandson. Then it gave way, as we have seen, in the time of Rudradâman about the year 150 A.D., and the second inscription shows that it gave way again when the ruling prince was Skandagupta. Thus Kathiawar was first governed by the Mauryas, afterwards by the Kshatrapas, and at a later period by the Guptas. This inscription of Skandagupta was for the first time fully translated and published with a facsimile and transcript by Dr. Bhau Daji in Vol. VII of our journal. Bhau Daji also published a revised translation of another record of the

same prince inscribed on a Lât, or pillar at Bhitari, in Vol. X, and, later, another copy and translation of the same were published in 1885 by Pandit Bhagvanlal. This is all that our journals contain of the records of the Gupta dynasty.

A General of the name of Bhaṭârka was appointed, in all likelihood, by one of the later Gupta princes to rule over Kathiawar in the last quarter of the fifth century ; but about the end of that century and immediately after when the Gupta dynasty broke up in consequence of the incursions of the Huns and from other causes, the rulers of Valabhî declared themselves independent and ruled over a large part of the country, the limits of which, however, have not yet been determined. In Vol. III of our journal we have a grant of Dharasena II, the seventh prince, and another of Śîlâditya II translated by the Rev. P. Anderson in 1851. In Vol. X we have a transcript of a grant of Dharasena I with remarks on the numerals in the Valabhî plates published by me. In Vol. XI we have two grants of Śîlâditya, the fifteenth prince, and of Śîlâditya I published by V. N. Mandlik. In Vol. XX Mr. Jackson of the Civil Service has published a grant of Mahârâja Droṇasiṁha, the third of the princes, which is important in this respect, that it is the earliest hitherto found, and is dated 183 of the Gupta-Valabhî era, corresponding to 501 A.D. As Droṇasiṁha was the third prince, the date of this grant enables us to fix the foundation of this dynasty in the last quarter of the fifth century. There is also another grant published by the same scholar of Dhruvasena II, bearing the date 320 of the Gupta era.

No other inscriptions relating to Kathiawar or Gujarât occur in the journals of our Society till about the thirteenth century. In 1844 Wathen published an inscription which exists at Somana tha Paṭṭana alluding to the construction of the temple. Wathen's translation was very faulty, and the record was again translated by Dr. Bühler in *Epigraphia Indica*, Vol. II. The latest Chaulukya prince mentioned therein is Bhîmadeva II, and the date is 1272 Vikrama, corresponding to 1215 A.D. There is also an inscription of princes of the Chûḍâsama family, who ruled in Girnar from about the tenth to the beginning of the fifteenth century. It refers to a prince of the name of Maṇḍalika.

Turning to Mahârâshṭra, the oldest inscriptions we find are those which mention princes of the Śâtavâhana or Śâlivâhana dynasty. They exist in the Nâsik cave temples, the Kârlî cave temples and at Nânâghâṭ, Kanherî, Bhâjâ, Junnar and Kuḍâ. In the period to which they refer the earlier or Pâli Buddhism was in a flourishing condition, and the caves were constructed as rest-houses for the wandering mendicants and places of worship for all devotees of Buddhism. The earliest of these inscriptions is that in which Kṛishṇarâja belonging

to that dynasty is mentioned. It occurs in a small cave at Nâsik. Copies of the inscriptions at Kânherî, Nâsik, Kârlî, Bhâjâ, Junnar and Kuḍâ, prepared by Lieut. Brett, were published in 1854 in Vol. V of our journal. Those at Kânherî and Nâsik were translated from Lieut. Brett's copies by the Rev. Dr. Stevenson. In his time, however, Pâli studies had scarcely begun, and consequently his translations are misleading and quite unreliable. In Vol. VI we have excellent eye-copies of the Kânherî and other inscriptions by E. W. West, and in Vol. VII of those at Nâsik by the same gentleman and his brother A. A. West. These copies I used for my translation published in the Transactions of the International Oriental Congress of 1874. A good many years afterwards Pandit Bhagvanlal and Dr. Bühler published their own translations of them. Finally we have copies of the Bedsâ inscriptions by A. A. West in Vol. VIII, and in the inscription published in Vol. XII, the name of Maḍharîputa Sirisakasena a Śâtavâhana was brought to light by Pandit Bhagvanlal. Papers on the Sanskrit numerals in the cave inscriptions and on those occurring in the Nânâghâṭ inscriptions have been published by Dr. Bhau Daji and Pandit Bhagvanlal in Vols. VIII and XII, respectively. The Śâtavâhanas established their sovereignty over Mahârâshṭra in the first century before Christ ; but they were displaced about the end of the first century after by a prince of the name of Kshaharâta Nahapâna. The inscriptions of his son-in-law, Ushavadâta, the son of Dinîka, occur at Nâsik and Kârlî ; and one of a minister of Nahapâna at Junnar. This Nahapâna is called Mahâkshatrapa and appears to have belonged to the same race which ruled over Kathiawar and Ujjayinî, *i.e.*, the Saka race. But there is no trace of a successor of Nahapâna having ruled over Mahârâshṭra, and it is expressly stated in the large inscription at Nâsik that Khakhârâta's family was exterminated by Gautamîputra. This Khakhârâta is Kshaharâta, which was another name of Nahapâna. The Śakas were driven out about 133 A.D. by the Śâtavâhanas. The names of the princes of this family occurring in our inscriptions are : Kṛishnarâja, Śâtakarṇi, Gautamîputra-Śâtakarṇi, Vâsishṭhîputra Pulumâyi, Gautamîputra Śrî Yajña Śâtakarṇi, Vasishṭhîputra Chatushparṇa (Chaturapaṇa) Śâtakarṇi, and Maḍharîputra Śakasena. The Śâtavâhanas are mentioned in Puranic Genealogies by the name of Andhrabhṛityas. The names of all the princes mentioned above, except the last two, occur therein.

The Śâtavâhanas seem to have ruled over Mahârâshṭra till about the end of the second century ; and the next dynasty, inscriptions of which we have in abundance, was founded about the beginning of the fifth century. What princes ruled over the country during the intervening period of three hundred years, we do not know for certain. Very probably a

family of the name of Traikûṭaka ruled over it and a portion of Gujarât during this interval, and used an era which is the same as that used by the rulers of Chedi, the country about Jabalpur and Chhattisgaḍ. Its initial date is 249 A.D. A copperplate grant found in a Chaitya in one of the caves at Kânheri, dated in the 245th year of that dynasty, has been published in Vol. V of our Journal; and another by a prince of the name of Darhasena, issued from the victorious camp of the Traikûṭakas, dated 207, is published in Vol. XVI. These years correspond to 494 and 456 A.D. There was always a close connection between the rulers of Chedi, called in later times Haihayas and Kalachuris and the Châlukyas and Râshṭrakûṭas of Mahârâshṭra. The Haihayas may have ruled over this part of the country also in earlier times, and afterwards been driven out by the Early Châlukyas.

Now we come to the Early Châlukya dynasty. We have in Vol. II a grant of Vishṇuvardhana, brother of Pulakeśi II, who began to reign in 610 A.D., was on the throne in 634, and was seen by Hieun Tsang in 639. In the same volume, we have another of Nâgavardhana, son of Jayasimha, another brother of the great Pulakeśi. In 1851 General Sir Le Grand Jacob published a facsimile, transcript and translation of a grant of Vijayâditya, the ninth prince of the dynasty who ruled from 696 A.D. to 733 A.D., and of another of Vijayabhaṭṭârikâ, the queen of Chandrâditya, the eldest son of Pulakeśi II, both found at Nerur, a village in the Sâvantwâḍî State, and a third found at Kocharem and issued by the same lady. These grants contain the genealogy of the family from the first prince Jayasimha to the reigning sovereign. A grant of Satyâśrayadhruvarâjendravarman issued from Revatîdvîpa under the direction of the Châlukya Lord, dated 532 Śaka, has been published by K. T. Telang in Vol. X. In Vol. IX Dr. Bhau Daji has noticed the photographs of the inscriptions at Dharwar and Mysore. One of these is the celebrated Aihole inscription of Pulakeśi II, dated 556 Śaka, corresponding to 634 A.D. Another is an inscription in a cave-temple dedicated to Vishṇu at Bâdâmi by Maṅgalîśa the fifth prince. In Vol. XIV a revised transcript and translation of Nâgavardhana's grant, mentioned above, with remarks containing a discussion of the chronology of the Early Châlukyas, and giving the correct date of the Aihole inscription, have been published by me.

A branch of this Early Châlukya dynasty was established in Gujarât, and the capital of that branch appears to have been Navasârî. A grant of Śryâśrays Śîlâditya Yuvarâja of this branch, dated 421, either of the Gupta or Chedi era, has been published in Vol. XVI; and another of Buddhavarasa of the same branch, uncle of the Vikramâditya of the main branch, in Vol. XX. In Vol. XVI Dr. Fleet has published a grant of Âdityavarman, son of Pulakeśi II, three of Vikra-

màditya I, and one of Vinayâditya the eighth prince of the dynasty. Upon the whole, it may be stated that our Journals contain very valuable information about this dynasty.

The last prince of the Early Châlukya dynasty, Kîrtivarman, was defeated and dethroned by Dantidurga who belonged to the Râshṭrakûṭa race. Thus the Ràshṭrakûṭa family that had been ruling over some province for at least five generations before acquired supreme sovereignty in Mahârâshṭra in the time of Dantidurga. His grant found at Sàmanagaḍ and dated Śaka 675, corresponding to 753 A.D., was translated by Bâl Śàstrî Jàmbhekar and published in 1847 in our Vol. II. Then in Vol. III we have a grant of Govinda IV, the fifteenth prince, dated Śaka 855 or 933 A.D., found at Sànglî and translated by General Jacob. In Vol. XVIII I published an important grant, bearing date 862 Śaka, corresponding to 940 A.D., by Kṛishṇa III, one of the most powerful princes of the family found at Deoli near Vardhâ. The Navasàrî plates issued by Indra III., the thirteenth prince, dated Śaka 836, translated by Prof. S. R. Bhandarkar, have been published in the same volume. In Vol. X Dr. Fleet gives an inscription, in which Pṛithvîrâma, a feudatory chief, owing allegiance to Kṛishṇaràja, is mentioned as having constructed a Jaina temple at Sugandhavarti, and assigned some land for its support in Śaka 897, corresponding to 975 A.D., and another which records the building of a Jaina temple at Mulgund in the Śaka year 824, corresponding to 902 A.D. The Kṛishṇaràja here spoken of is Kṛishṇa II. In the first volume a grant found at Khàrepàṭan was published in 1843 by Bâl Gaṅgâdhar Śàstrî. The grant was issued by a feudatory chief ruling over Southern Konkan. In the beginning the whole genealogy of the Ràshṭrakûṭas, from the first prince Dantidurga to the last Kakkala, is given, and it is a valuable document, and has enabled us to correct many a mistake in some later grants and conjectures of modern scholars.

A branch of the Râshṭrakûṭa dynasty was established in Gujarât, similar to the one of the Châlukya dynasty noticed before. A grant of Karka I of this branch, deciphered, transcribed and translated by D. R. Bhandarkar, has been published in Vol. XXII. The date of the grant is 738 Śaka or 816 A.D. A grant of Abhimanyu belonging to a Ràshṭrakûṭa family, which appears to be certainly different from the family that ruled over Mahàràshṭra, has been published in Vol. XVI by Pandit Bhagvanlal.

The last prince Kakkala of the Ràshṭrakûṭa dynasty was vanquished and dethroned by Tailapa who belonged to the Chàlukya family, and thus became the founder of the dynasty known by the name of the Later Chàlukyas. This was an important dynasty; but we have not many

documents referring to it in our Journals. In Dr. Bhau Daji's notice of the photographs of the inscriptions at Dharwar and Mysore, referred to above in Vol. IX, we have mention of an inscription containing the name of Vikramâditya Tribhuvanamalla, the sixth prince, in which is recorded a grant by his feudatory Mayûravarman. In Vol. X Dr. Fleet gives an inscription which records the grant of land by Śântivarman, a feudatory of Tailapadeva, to a Jaina temple he had constructed at Sugandhavarti in Śaka 902 or 980 A.D. This prince was Tailapa, the founder of this dynasty. Another, published by the same scholar, mentions Kàrtavîrya who is represented as a feudatory of Bhuvanaikamalla, a third records, the grant of land by Sena, a dependent of Tribhuvanamalla, but the immediate servant of his son, Jayakarṇa, in the Śaka year 1009, and a fourth, a grant by Kàrtavîrya, a feudatory of the same monarch, in 1019 Śaka. He also notices an inscription in which Aṅka, owing allegiance to Trailokyamalla, is represented to have made a grant in the year 970 Śaka and Kàrtavîrya in 1009 Śaka. Bhuvanaikamalla was the Châlukya prince Someśvara II who reigned from about 1069 A.D. to 1076 A.D.; Tribhuvanamalla, Vikramàditya II (1076—1127), the patron of Vijñaneśvara, the author of the Mitâksharà; and Trailokyamalla was Someśvara I who reigned from 1040 A.D. to about 1069 A.D. In volume XI Dr. Fleet has published inscriptions which record grants by chieftains of the Sindavaṁśa or Sinda race who were feudatories of the Châlukya emperors, Bhuvanaikamalla, Jagadekamalla the successor of Someśwar III and Nuramadi Taila the great grandson of Vikramâditya. In these grants occur the names of all the Châlukya princes from Jayasiṁha, the grandson of Tailapa, and the fourth prince of the dynasty to the reigning monarch.

This family had many offshoots, and one of these ruled over Southern Konkan and had Saṅgameśvar as its capital. In volume II we have an inscription of a prince belonging to one of these, and in volume IV we have another, dated Śaka 1182, corresponding to 1260 A.D., found in the Ràjâpur taluka of the Ratnâgiri District. The donor mentioned in it is Keśava Mahâjani, minister of a chief of the name of Kâinvadeva. Probably, Kâinvadeva belonged to the same dynasty as that which had Saṅgameśvar for its capital.

The later Châlukyas were followed by the Kalachûris. A grant of Soma, the son of Bijjaṇa, the founder of the dynasty, dated 1096 Śaka, corresponding to 1174 A. D., has been published by me with a transcript and translation in volume XVIII.

The Kalachûri dynasty had a very precarious existence of about 25 years; and it was followed by the Yàdavas, who had before been subordinate Chiefs dependent on the Later Châlukyas who were

sovereigns of Kalyâṇa. Of the seven ancient inscriptions noticed by Bâl Gaṅgâdhar Śâstrî in an article published in volume II of our Journal in 1845, inscription No. II refers to Mahâdeva, the last but one prince of the Yâdava dynasty. Its date is 1187 Śaka, corresponding to 1265 A.D.; and No. III mentions a grant made by an officer of Kannaradeva, which was the Prâkṛit form of Kṛishṇadeva, his name. It is dated 1172 Śaka or 1250 A.D. No. IV refers to the last prince Râmadeva or Râmachandra, and is dated 1194 Śaka. In volume IX we have an inscription of Kṛishṇa the fourth prince referred to above, dated 1171 Śaka and published by Dr. Fleet; and in volume XV that same scholar has published a grant of Siṅghaṇa, the third prince, dated 1160 Śaka or 1238 A.D. This was the last dynasty that ruled over what might be called the Maratha Empire. The last prince, Râmadeva or Râmachandra, was defeated by Allauddin, and the Mahomedans soon afterwards established themselves in the Deccan.

Several of the Nâsik and Kârlî caves are monuments of the first or Śâtavâhana family and of the Mahâkshatrapa Nahapâna. The cave dedicated to Vishṇu at Bâdâmi and some temples at Paṭṭaḍkal and other places in the Canarese country are monuments of the second dynasty noticed above, that of the Early Châlukyas, and the temple of Kailâsa carved out of a solid rock, of the third, *viz.*, that of the Râshṭrakûṭas, the second prince of which, Kṛishṇa I caused, it to be excavated. The capital of the first dynasty was Paiṭhaṇ, of the second Bâdâmi, of the third Mâlkheḍ, of the fourth or Later Châlukyas, Kalyâṇa, and of the fifth *viz.*, that of the Yâdavas, Devagiri, the modern Dowlatâbad. It is curious to observe that all these, with the exception of Bâdâmi, are situated in the territory of the Nizam of Hyderabad, and have no connection with the main Maratha country. It also deserves observation that Mahârâshṭra has always been politically connected with the Canarese country, though the latter had petty chiefs of its own. It is also worthy of notice that two of our dynasties established themselves in Gujarât as the modern Marathas have done.

Besides the dynasties mentioned above that ruled over the whole Maratha Empire, we have inscriptions of three branches of subordinate or feudatory chiefs who belonged to a family which was called Śilâra or Śilâhâra. They trace their origin to a mythical personage, named Jîmûtavâhana, who is mentioned in Buddhistic books as a Bodhisattva or a person whose predominant feeling is benevolence. Of the three branches, one ruled over the districts of Kolhâpur, Miraj and Karhâḍ. It was composed of fifteen princes. This was the latest of the three dynasties. We have an inscription of the last prince Bhojadeva II published in Volume III of the Literary Society in 1821 by Dr. Taylor. In Volume II of our Journal there are notices by Bâl Gaṅgâdhar

Sâstrî of inscriptions, one of which, dated 1065 Śaka, refers to Vijayâditya, the fourteenth prince; another, dated 1058 Śaka, to Gaṇḍarâditya the thirteenth; and a third to Vijayâditya already mentioned. In Volume XIII we have a facsimile, transcript and translation of a copper-plate grant of Gaṇḍarâditya, dated 1032 Śaka, corresponding to 1110 A.D., published by Pandit Bhagvanlal. This dynasty appears to have been founded in the time of the Râshṭrakûṭa king Kṛishṇa III and exterminated by the Yâdava king Singhana, who subdued the last prince Bhoja.

The dynasty of the Śilâhâras of Northern Konkan was founded in the time of Amoghavarsha I, the Râshṭrakûṭa prince. He assigned that province to Pullaśakti and to his son Kapardin belonging to that family, as we see from inscriptions occurring in the Kânherî Caves, copies of which, prepared by West, have been published in Volume VI of our Journal. Two of these inscriptions were again generally inspected by Pandit Bhagvanlal, and his versions of the portions he saw are given in Volume XIII. The dates occurring in them are 775 and 779 of the Śaka era. There is a facsimile, transcript and translation of a grant by Aparâditya, one of the latest princes, dated Śaka 1049 or 1127 A.D. in Volume XXI, published by Professor K. B. Pathak. An inscription on a stone found near the Government House, Parel, which is now in the Society's Museum, has been published by Pandit Bhagvanlal in Volume XII. It records the assignment of a portion of the revenue of a certain oart in the village of Maholî in Salsette, which was in the possession of Ananta Prabhu Pai, for the worship of Vaidyanâtha Deva by a king of the name of Aparâditya in the month of Mâgha in the year 1109 Śaka, corresponding to 1187 A.D. One of these two Aparâdityas, probably the later one, was the writer of the Commentary on the Smṛiti of Yâjñavalkya, which is so famous. This dynasty was put an end to a short time after 1260 A.D. by the Yâdava prince Mahâdeva who vanquished Someśvara the last ruler of Northern Konkan.

The third branch of the Śilâhâra family was established in Southern Konkan in the time of Kṛishṇa I of the Râshṭrakûṭa dynasty, about the middle of the eighth century of the Christian era and the last quarter of the seventh century of the Śaka era. The genealogy of this branch up to Śaka year 930, corresponding to 1008 A.D., is given in the Khârepâṭaṇ grant published in Volume I of our Journal by Bâl Gaṅgâdhar Śâstrî. The subsequent history of this branch we do not know.

Volumes IX and XII bring before us another line of princes and chiefs, *viz.*, that of the Kadambas. Dr. Fleet gives in the first seven inscriptions (No. 1—7) of princes, beginning with Kakusthavarman,

and Mr. K. T. Telang in the second, three, the names of the princes in which are different. But all the records speak of the princes as sons of Hàrîti and of the Mânavyagotra, and as worshippers of Mahâsena and the Mâtṛes or goddesses. The Early Châlukya princes are so described in their plates. Again, Dr. Fleet gives in his first article in Volume IX one inscription of another set of Kadamba kings or chiefs and seven in his second article. The names here are different from those in the other inscriptions. Of these the second chief Jayakeśi is spoken of in the grants as having made Gopapattana or Goa his capital. His grandson Jayakeśi II married Mailalamahâdevî, the daughter of Vikramâditya II (1076 A.D.—1126 A.D.) of the Later Châlukya dynasty, and this circumstance was considered as having conferred so much dignity on the family that it is repeated in all the grants. The chiefs are also described as *Banavâsîpuravarâdhîśvara*, *i.e.*, lords of the great city of Banavâsi, and, like many such expressions, it means that they were descended from a line of princes who reigned gloriously at Banavâsî. And we know from other sources that Banavâsî in North Canara was ruled over by princes of the Kadamba race. The princes, therefore, who are described in terms similar to those used in the case of the Early Châlukyas were the rulers of Banavâsî, and were contemporaries or even predecessors of the Early Châlukyas. They were adherents of the Jainas, and their grants are made to Jaina temples. The later Kadambas of Goa were an offshoot of the original Banavâsî Kadambas, as the Konkan Châlukyas were of the dynasty that ruled over Kalyâṇa and were adherents of Brahmanism.

In Volume XII are published three copper-plate grants of princes of the Vijayanagar dynasty by Dr. Fleet. One, dated 1276 Śaka, was made by Bukkarâja, the founder of the dynasty; another by Harihara, his son and successor, and is dated 1301 Śaka; and the third, dated 1434 Śaka, is by Kṛishṇarâya. In Volume IV is published a grant in which Mâdhava, Harihara's Viceroy at Jayantipura, which is to be probably identified with Banavâsî, is represented to have besieged Goa, killed hosts of Turushkas, probably Mahomedans, and captured the place. After his death Narahari was appointed Viceroy. Mâdhava who is spoken of as the Great Counseller, and the Âchârya who introduced the path marked down by the Upanishads granted the village of Kuchara as a means of subsistence to 25 families of Brahmans. The boundaries of the village were :—to the east the village of Pâṭa, to the south the village of Mhâpaṇa, to the west the sea, and to the north the village of Paraulya. All these villages are to the south of Mâlvan and north of Vengorla, and the village Kuchara, to which in honour of Mâdhava the Viceroy the name Mâdhavapurî was given, is probably the present village of Kocharem. It thus appears that the territory of the

Vijayanagar kings extended at that time to Vengurla and Mâlvan. The grant was made in Śaka 1313, corresponding to 1391 A.D., by Mâdhava, but appears to have been carried out by his successor, Narahari Mâdhava, called Mahâpradhâna, is represented as Bukka's Viceroy, governing the Banavâsî Twelve Thousand, in an inscription, dated Śaka 1290=1368 A.D., existing at Banavâsî.

In Volume VII Dr. Bhau Daji has published inscriptions of the Vakâṭaka dynasty occurring at Ajenṭâ. In Volume XIX we have a facsimile, transcript and translation of an inscription in the temple of Âmranâtha near Kalyâṇ by the same scholar. He read the date as 782 Śaka, but in a revised transcript and translation of the same inscription by Pandit Bhagvanlal, published in Volume XII, it is read as 982.

In Volume I we have a very valuable record of the Paramara dynasty of Malwa. It is inscribed on a stone found at Nagpur, and was translated by Bâl Gaṅgâdhar Śâstrî. It has recently been edited by Kielhorn and published in the *Epigraphia Indica*, Vol. II.

In Volume XXI we have an article by D. R. Bhandarkar. The names of princes of Kanauj occurring in certain inscriptions on stones at Gwalior, Peheva and Siyâdoni are Râmabhadra, Bhoja, Mahendrapâla and Mahîpâla, each preceding one being father of the succeeding. The names occurring in certain copper-plate grants are the same, with the exception of the last, and the order is the same. The princes also are represented as issuing their charters from Mahodaya which is another name of Kanauj; and still they were considered as belonging to a different dynasty from that of Kanauj. Mr. Bhandarkar after an examination of the arguments advanced comes to the conclusion that the princes are the same as those of the stone inscriptions, and he also explains the difference as to the last name. In another paper in the same volume he discusses the question of the race of these kings and concludes that they were the Gûrjaras against whom our Râshṭrakûṭa princes, Dhruva, Govind III, Kṛishṇa II, and most of the others, were at war. Both dynasties were equally powerful. This Gûrjara dynasty was established at Kanauj about the middle of the eighth century since its second prince Vatsarâja was a contemporary of our Dhruva Nirupama, and, according to a statement in the Jaina Harivamśa, was reigning in Śaka 705, corresponding to 783 A.D. Mahendrapâla, the patron and pupil of the poet Râjaśekhara, was the great grandson of Vatsarâja, and was on the throne in 903 A.D. and 907 A.D. Râjaśekhara traces the pedigree of his patron to the race of Raghu or the Solar race while he was a Gûrjara and a foreigner, though naturalized and become a thorough Hindu.

I subjoin a list of the remaining miscellaneous inscriptions.

Vol. I, pp. 96-103—A record of the benefactions of the Emperor Akbar at Palitana to the Jains and of the goldsmith Tejapal.

Do. p. 259.—Copy of an inscription found on a tablet at Nagpore.

Vol. X., p. 19.—Copper-plate grant of Gûrjara Dadda II, son of Jayabhaṭa, 417 Śaka, by R. G. Bhandarkar.

Do. p. 46.—Rudradeva's inscription at Anamakoṇḍ, dated 1064 Śaka, a transcript and translation of, by Bhau Daji.

Do. p. 63.—A revised transcript and translation of the inscription on the Delhi iron pillar, by Bhau Daji.

Vol. XIV., p. 71.—A few notes on the inscriptions in Kutch, by V. N. Mandlik.

Vol. XVI., p. 114.—A Godâvarî copper-plate grant of the Râjâ Pṛithvîmûla, by Fleet.

Do. p. 357.—An inscription from Buddha Gayâ of King Aśokavalla, dated 51 of the era of Lakshmaṇa Sena.

Do. p. 378.—An inscription from Kotâ of Śivagaṇa, dated 796, of the Lords of Malva.

Vol. XVII., p. 1.—A Buddhistic Sanskrit inscription from Java, mentioning the construction of a temple of Tàrà in the Śaka year 700, by R. G. Bhandarkar.

Vol. XIX., p. 348.—An inscription on the three gateways at Ahmedabad, 1868 Samvat, or 1812 A.D., of the time of Fattesingh Gaikwar, containing an order for removing a grievance as regards inheritance.

Vol. XX., p. 106.—Inscription on three bricks received from a place 200 miles from Mandalay in Burma, consisting of the usual Buddhistic formula ये धर्मा, &c.

Do. p. 211.—A grant from the Broach District by Saṁgamasiṁha, a feudatory, bearing the date 292, probably of the Chedi era, by Mr. Jackson.

Do. p. 209.—A Kushana stone-inscription and the question about the origin of the Śaka era, by D. R. Bhandarkar.

2.—*A few Remarks on the Papers bearing on Sanskrit Literature contributed to the Journals of the B. B. R. A. S.*

By Professor H. M. Bhadkamkar, B.A.

On a memorable occasion like the present one in the history of this ociety, it will not be without advantage to look back at the work the ociety has done during the last hundred years it has lived. Such a sumé will enable us at a glance to ascertain what help the Society has ndered to the advancement of oriental research, and will also direct to the regions yet left unexplored.

The scope and the various sides of research worthy of being underken by the Society have been ably given in his opening discourse by r James Mackintosh, the President of the Literary Society of Bombay, d the vast field of investigation into oriental literature and science s been exhaustively and accurately sketched by James Bird in 1844. hese discourses show the relative importance of the various branches, d define the position which oriental literature should occupy in this nnection. Oriental literature, at least so far as we are concerned, lls, in the first place, into two main divisions on account of a radical fference in the languages in which the materials of research have been ansmitted to us—I mean the Persian and the Sanskritic. The latter intended to include the works, &c., not only in the old Sanskrit or, ore properly speaking, the Vedic language, but also the allied nguages like the Prâkṛits, and the present spoken vernaculars like e Marathi, the Gujrathi, the Hindi, &c. The materials for research ay either be old monuments and inscriptions of every sort, or they may e complete works composed in any of these languages, the main aim f research being to make the acquaintance with these as complete in very way as possible. The inscriptions form the basis of an independnt paper and the coins of another. The discovery of old MSS. and eir collection is also independently considered, so my work restricts self to the review of such papers only as bear on Sanskrit literary orks. It should have been necessary to review the papers bearing on e Prâkṛits and the vernaculars. But as they would be felt to be outide the strict limits of my paper, I have simply indicated them by name Appendix B.

In 1856 Dr. John Wilson had given his learned review of the state of riental and antiquarian research connected with the West of India,

and in this connection he has referred to several honoured names in speaking of the services they have rendered in the department of Sanskrit literature. To these, more modern names of no less distinction must be added, and some of the foremost amongst them figure in connection with the papers under review. One is sure to miss amongst these the names of some honest workers in the field of Sanskrit literature on this side of India, as the late Mr. S. P. Pandit, as also the names like those of Professor Kathavate or Tilak ; but that is due to the limit imposed on this review, and not to their being less illustrious. Like the Society of Bengal, our Society is not directly connected with the publication of any series of entire literary works ; consequently, our view has to be limited only to the researches that have made their appearance in the Journal of this Society.

With these preliminary remarks I now proceed to review very briefly the papers given in Appendix A. It will be convenient to refer to them under certain headings :—

First, then, the papers bearing on Philology (37 and 53).—This branch of linguistic research is only occasionally represented. In fact, we have the papers only by two scholars bearing on Sanskrit. In the one Mr. H. H. Dhruva brings to a focus the views of various scholars on the development of human tongue, and has also tried to show how far the old Sanskrit writers have succeeded in laying, perhaps, a surer foundation of the science of philology. The lectures by Dr. Bhandarkar, however, are of permanent interest, and set forth the basis of philological science with its application to Sanskrit and the Prâkṛits so lucidly and instructively as may command universal and eternal admiration. For the fund of information they supply and the original ideas they set forth, they are almost incomparable in their importance, and are, consequently, indispensable to any student of philology. There is no other paper besides these bearing on this subject. The fact is probably due to the want of this branch of study in the University of this Presidency, which alone is feeding the fountains of the study of Western sciences and Western thought in this country.

Secondly.—Let us next observe what has been done in connection with Vedic Literature (2, 56, 60, 62). In this department the greatest want is felt. It is, perhaps, surprising that I should make such a complaint in the very midst of a country where the Vedas are learnt and recited with the greatest zeal and accuracy of pronunciation. I mean, however, not learning the Vedas by rote, but a knowledge of them that is calculated to give a clear and an accurate view of the civilization and advance in some departments of knowledge that these bold thinkers, the Ṛishis of old have made, the way they thought and the reason why

they thought so—an inquiry of this kind and a study of the Vedas from this point of view is quite in its infancy in this country; and, consequently, as a child thinks, in the first place, every woman its mother, so every wild speculation is set forth with the claim of original research. In this department the University is trying to give an impetus, but the results are not yet so great as one would wish. Outside this Society we see, no doubt, some energy displayed in printing the Vedic and the post-Vedic literature, as also we find bold original attempts made here and there in the exposition of them, and at times a scholar like Mr. Tilak rises amongst us to strike the entire literary world and give a new direction to the interpretation of the Vedic myths; but such attempts are few and far between, and these also, for one reason or another, have not yet leavened our people and produced a general zeal for the Vedic study. There is hardly anything amongst us that can stand even a modest comparison to the vast attempts the Germans and other foreign scholars have made and are making, and what little we have has been hardly the outcome of the attempts of this Society. One of the aims with which this Society was started was to act as a medium of interpreting Indian thoughts to Englishmen and to familiarize the people here with the knowledge and attainments of the West. This, I fear, is not yet satisfactorily done by this Society, so far at least as the Vedic literature is concerned. I believe that if this Society were to make energetic attempts to acquaint the Indian student with the researches of Western scholars from time to time, a very beneficial step will have been taken in awakening the mind of our men from the torpor it is labouring under at present. In our Journals there appears only one such notice (5) of the Vedic Investigations of Dr. R. Röth by the Rev. J. M. Mitchell, and in one other place (38) in connection with Sanskrit poetry we find Pandit Durgaprasád has supplied perhaps better variants to Böthlingk's Indische Sprüche. Besides these two, we find no other independent attempts to create a curiosity for the study of the researches and the work of the Western scholars. As to original researches in Vedic literature we have only four papers (5, 56, 60, 62). Of these, the first, "On the Dowry received by Kakshîvan," read by Dr. Stevenson, deduces conclusions about the state of Indian society in Vedic times, which excited by their novelty some interest in the days when they were first given, but which at present are accepted by all as quite commonplace. The other three papers are contributed by one of our learned members who by his reading possesses the unique advantage of uniting in himself an acquaintance of the Avestic and the Vedic literature. Of these the first, on "A Chapter from Tâṇḍya-Brâhmaṇa treating of the Vrâtya-stoma, &c." is surely a paper of some interest as it tries to prove the custom in the Vedic age of admitting the non-Aryans to the status of the

Aryans—a custom that has almost altogether died away in modern times. In the second, three hymns, *viz.*, the Vṛishâkapi hymn, the Saramâ hymn, and that which celebrates the births of the Devas, are translated, and some remarks are made on their authorship and their contents. The first is regarded as a social hymn, the second political, and the third speculative. Here by-the-way we are told that the *devas* in the third hymn mean the *stars* and that they are to be distinguished from the *devas* in the Saramâ hymn, who are the residents of some region on the earth. It is also suggested that there must have been some difference in the pronunciation of these words familiar to all when the Vedic language was a living tongue, but which has naturally died out ever since. From this, again, several conclusions have been deduced. But one cannot see why no trace of such an important distinction is to be found anywhere from the oldest times of Vedic literature. The impression one carries from reading these and the third paper on "The Samhitâ of the Ṛig-veda searched" is that there is much undigested matter worth taking into account, many suggestions perhaps worth acceptance and good many questions suggesting research but that they are too full of hasty generalizations. I shall refer to but one instance. The word *Karmâra* is translated as a glass-blower, because, in the first instance, it *seems* to the writer that a glass-blower is meant. But the doubt at once disappears, and the following conclusion is drawn from the occurrence of the word in the hymn. "The word 'glass-blower' *proves* that the society of the time when the hymn was written had made advance in the art of glass-blowing. The author himself had perhaps the honour to belong to that trade." Such speculations speak only an infantine stage of Vedic research, and it seems we shall have to wait until the true spirit of research infuses our minds.

We next proceed, and with a quicker step, to the papers based on the Pâurânic sources, *viz.*, Nos. 1, 4, 15, 19, 25 in Appendix A. The first of these gives an account of the Dasrâ Festival, and deduces from Indian mythology that it was originally a distinct festival that came to be tacked on to the Durgâ worship, lasting for nine days or nine nights in the beginning of the bright half of the month of Ashwin. There is, I think, some agricultural element in these ceremonies, but that is not made out anywhere in the paper. The next paper describes the manner of contracting third marriages. The superstitious ceremony is described, but no explanation of the origin of it is sought. The three other papers are contributed by the late Rao Saheb V. N. Mandlik. Taking the occasion of a description of the festival of Nâgapanchamî, and the mythical importance of the shrines of the river Krishna, of Mahabaleshwar, and Sangameshwar, the papers concisely give the main authorities and the mythical origin of Serpent-worship and Linga-worship in

eral. The paper on Serpent-worship is especially interesting as h for an almost exhaustive collection of quotations from Vedic and -Vedic sources as for the interesting history of this worship and the rstitions connected with it. The paper also makes it evident that ime of this worship is not the same all over India.

the next place we refer to the papers which are adapted specially iterpret the Hindu mind to an English reader (3, 7, 10, 14, 27—29). is mainly the aim of the partial rendering of the poems of Raghu- a and Bhattikâvya in excellent English verse, of the translation of ia-mâla, an epic celebrating the praise of a line of historical kings iddharâja Jayasiṃha and some of his successors, as also of the ysis of the Harshacharita by Bâṇa. The first two renderings, ever, have a merit independent of their character as interpreters of an thought. Reading them even an Indian begins to realise new ties in the originals. The paper on the dialectic of Nyâya is an npt in the same direction. This is, however, not a mere transla- as some remarks are made in the way of showing the exact posi- the scope, and the aim, of Nyâya in comparison to the Aristotelian iings on the same subject. Next we may note the attempt made ie Rev. A. Bourquin by translating with some explanatory notes irst book of Dharmasindhu, a recent work widely used in Mahâ- ṭra as an authority on the domestic ceremonies and observances ent amongst the Hindus.

irther, we get several papers containing notices of individual works r for further or more correct elucidation, or for the historical worth were supposed to possess. Amongst these we may mention the rs on Dr. Thibaut's translation of the Śârîrabhâshya of Śaṅkara, and Panchasiddhântikâ of Varâhamihira, the Theravali of Merutunga, Saptaśatî of Śalivâhana, the Aûchityâlaṃkâra, the Sûktimuktâvali, Kâmasûtra of Vâtsyâyana, as also of Nṛipatuṅga's Kavirâjamarga, h, by the bye, is a standard work on Alamkâra in the Kannada uage. Occasionally a curiosity in literature is brought to our e as the Sanskrit version of Khordavesta from the Pahlavi trans- n of the original by a Dastur who, according to the Parsi tradition, about the year 720 A.D.

ext we may mention three papers which are mainly comparative ieir spirit. The comparison of the Brahmanical and the Jain geo- phy has led Dr. Stevenson to the conclusion that the Brahmanical em from its elaborateness and inconsistency appears to be derived the more simple original account of the Jains. Next on compar- the present Hindu code of Manu with the corrected Buddhist Pali of Manusâradhammasattham which forms the basis of the present

Burmese code, Dr. Führer concludes that the latter is not derived from the former in its present state, but must have drawn upon an older version of Manu. Another paper by Prof. Deussen brings out the main features of Śankara's Vedantic view, and passes a great eulogy on it as it presents many similarities to the Western metaphysics. The coincidences observed in the first two papers may, perhaps, be explained on the theory of mutual borrowing of ideas; but, generally speaking, all the three papers supply good material for proving historically that human mind advances similarly in similar circumstances, whether actual communication of thoughts may or may not exist.

The most important work, however, of our Society appears to me to lie in the direction of literary history, in a vigorous attempt to determine the chronological position of several works and authors that are brought forth for consideration. An almost entire absence of historical taste has become proverbial with us. Even the chronicles like Râjataranginî, which are expected to adhere to historical sequence and historical truth, fail to satisfy the expectation, and are found to draw more on fancy than on facts. So, even the dates we may find in certain records are not accepted as reliable, and several times they have to be tested and corrected by the evidence of coins and inscriptions, as it was found necessary to do in connection with the date of Madhusûdana Saraswatî. In such a state accurate literary history becomes impossible, and one has to be satisfied merely with the ascertainment of the relative position and an approximate estimate of the interval between any two points we may have occasion to note. The confusion is further heightened when we get a date in an unspecified era. There is also, to add, a great divergence of views as to the beginning of these eras. The era of Yudhishṭhira, for instance, is supposed to date from the coronation of the hero of the Mahâbhârata on the throne of Hastinâpura, but there is no knowing as to when this event took place. Raising this question R. R. Bhâgwat has given two or three views about it. There is what is called the astronomical and also the popular view. The discrepancy between the two is no less than about 653 years. The question is left undecided. The same is the case with the other eras. Dr. Bhau Daji tells us that the era Vikrama is co-eval with the date of the defeat of the Śakas by Vikramâditya, and the Śaka era or the Śakanṛpakâla as it is sometimes called commences from the occupation of Mâlwa and the Dekkan by the Śakas. But which Vikramâditya is to be honoured as giving his name to the era is uncertain, as several powerful kings are described with this appellation. We are warned by Rao Saheb Mandlik, on the other hand, not to confound Śalivâhana whose era is current as the Śaka era, and who ruled in Pratishṭhâna, with the Sâtavâhana of the Bṛihatkathâ who was a contemporary of

Nanda, nor with the Sátavâhana of the Jainas who must have lived about the year 466 A.D. The era of Śâlivâhana commences from 78 A.D., and is current in India South of the Narmadâ. The Saṃvat of Vikramâditya commences from 56 B.C., but is hardly met with in actual use before the 6th century of the Christian era, and now it is generally believed that a date in an unspecified era later than the 6th century belongs to the Saka era in the Dekkan, but to the Vikrama era if it occurs north of the Narmadâ. This confusion has very much affected the earlier papers contributed to our Journal, though, thanks to the advance of epigraphical research, the most is being gradually cleared up.

With the scholars in this Presidency more than elsewhere the yearning for constructing history out of the available materials has been very strong. They have, consequently, tried to leave no stone unturned in unearthing the evidence from every possible source. They instituted a general search for new materials. They compared the statements of an author in the several works he wrote, as also took note of what one has said of the other ; they compared the Brahmanical and Jain authorities, as the evidence of the latter was expected to be more conclusive in certain cases ; they tried to interpret what looked obscure or unsatisfactory; and in this way they succeeded in establishing certain chronological facts at any rate. In this work much depended on the accuracy of interpretation of texts and the extent of materials at command, and on several occasions keen controversies were carried on. We may note (i) the controversy about the date of Patanjali, (ii) that about the age of Mahâbhârata, (iii) of Kâlidâsa and his patron Vikramâditya, (iv) the date of Bhartṛihari, (v) of Kumârila and of Śankarâchârya. In the first two Dr. Bhandarkar has successfully fought for assigning Patanjali to the second century before Christ, and for establishing that a Mahâbhârata must have existed from the time of Pânini and Âśwalâyana. His conclusions are now generally accepted as established facts. As to the age of Kâlidâsa, too, Dr. Bhau Daji and Prof. Pathak from altogether different points of view have come to very nearly the same conclusion, and Prof. Pathak has placed him in the first half of the 6th century A.D., though, it may be mentioned, an opposite view has been taken by Prof. Apte, of Kolhapur, who assigns him to 56 B.C. The date of the death of Bhartṛihari, the Buddhistic author of the Vâkyapadîya, is fixed by Prof. Pathak at 650 A.D., and in relation to him Kumârila is assigned to the first half and शंकराचार्य and सुरेश्वराचार्य to the latter half of the 8th century. Mr. Telang, however, contends that these last cannot be assigned to such a late date, and he would put them to the seventh century. It may be mentioned that Dharmakîrti is identified with the author of न्यायबिन्दु, which is commented upon by

धर्मोत्तराचार्य, who belonged to the सौत्रान्तिक school of Buddhism. This Dharmakîrti has been assigned by Prof. Pathak to the beginning of the 7th century, and it must be admitted, without opposition, that he was older than Śankarâchârya as the latter criticises his views. There are several other important dates established by these and several other papers on independent points, amongst which we may mention those on विज्ञानेश्वर, हेमाद्रि, हेमाचार्य, श्रीहर्ष the author of नैषधीय, राघवपाण्डवीय, बौधायन and आपस्तंब, माधव and सायन, and मधुसूदनसरस्वती, as also the interesting paper on the historical review of Indian logic. The facts, however, and the historical details brought to light by these papers are so numerous as to be hardly capable of being compressed within the compass of these remarks, and I may mention that an omission is not an indication of want of proof, so much as that of space.

These researches clearly prove the critical grasp of the mind of our scholars, and also indicate how much room is yet left for scholarly work and criticism.

APPENDIX A.

STATEMENT SHOWING PAPERS ON *Sanskrit Literature* OCCURRING IN THE JOURNALS OF THE B. B. R. A. S.

Serial No.	Names of the Papers with their Authors.	References.
1	On the Institution and Ceremonies of the Hindu Festival of the Dasra, &c. By Major-General Sir John Malcolm.	Trans. Lit. Soc., Vol. III, p. 79.
2	The Dowry received by Kakshivan. By the Rev. Dr. Stevenson.	B.B.R.A.S. Jour., Vol. I, p. 52.
3	Metrical Translation of the First Book (Sarga) of the Raghuvamsa, a Heroic Sanskrit Poem, by Kalidasa. By the Rev. J. Murray Mitchell.	Vol. I, p. 308.
4	On the Brahmanical Manner of contracting Third Marriages. By the Rev. J. Stevenson, D.D.	Vol. II, p. 396.
5	Notice of Dr. Roth's Investigations of the Vedas. By the Rev. J. M. Mitchell.	Vol. II, p. 404.
6	Remarks on the Relation that subsists between the Jain and Brahmanical Systems of Geography. By the Rev. J. Stevenson, D.D.	Vol. II, p. 411.

APPENDIX A—*contd.*

Serial No.	Names of the Papers with their Authors.	References.
7	Some Account of the *Bhattî Kâvya.* By the Rev. P. Anderson, M.A.	Vol. III, pt. ii, p. 20.
8	On the Sanskrit Poet, Kâlidâsa, Part. 1. By Bhau Daji.	Vol. VI, p. 19.
9	Do. do. do. Part 2.	Vol. VI, p. 207.
10	Ratna-mâlâ : Translated by the Late Hon'ble Mr. A. K. Forbes.	Vol. IX, p. 20.
11	A Note on the Age of the Author of the Mitâksharâ. By George Bühler.	Vol. IX, p. 134.
12	The Inroads of the Scythians into India and the Story of Kâlakâchârya.	Vol. IX, p. 139.
13	Merutuñga's Therâvali. By Dr. Bhau Daji	Vol. IX, p. 147.
14	Notes on the Works and Age of Hemâdri. By Dr. Bhau Daji.	Vol. IX, p. 158.
15	Serpent Worship in Western India. By Rao Saheb V. N. Mandlik.	Vol. IX, p. 169.
16	The Dialectic of the Nyâya Darsâna. By the Rev. R. Stothert.	Vol. IX, p. 209.
17	Brief Notes on Hemachandra or Hemâchârya. By Dr. Bhau Daji.	Vol. IX, p. 222.
18	Brief Notes on Mâdhava and Sâyana. By Dr. Bhau Daji.	Vol. IX, p. 225.
19	Notes on the Shrine of Mahâbaleśwara (Vol. IX. 250, Shrine of the Krishna). By Rao Saheb V. N. Mandlik.	Vol. X, p. 1.
20	Age of the Naishadha Charita of Śri Harsha. By Dr. G. Bühler.	Vol. X, p. 31.
21	Discovery of Complete MSS. Copies of Bâṇa's Harsha Charita, with an Analysis of the more important portions. By Dr. Bhau Daji.	Vol. X, p. 38.
22	Consideration of the Date of the Mahâbhârata in connection with the Correspondence from Col. Ellis. By Prof. R. G. Bhandarkar.	Vol. X, p. 89.
23	Salivâhana and the Salivâhana Saptaśati. By Rao Saheb V. N. Mandlik.	Vol. X, p. 127.
24	A Note on the Age of Madhusûdana Saraswati. By K. T. Telang.	Vol. X, p. 368.
25	Sangameśwara Mâhâtmya and Linga Worship. By the Hon'ble Rao Saheb V. N. Mandlik.	Vol. XI, p. 99.
26	Additional Remarks on the Age of the Naîshadhîya. By Dr. G. Bühler.	Vol. XI, p. 279.

APPENDIX A—*contd.*

Serial No.	Names of the Papers with their Authors.	References.
27	Dharmasindhu : Translated by the Rev. A. Bourquin.	Vol. XV, p. 1.
28	Do. do. do. Art. 2...	Vol. XV, p. 150.
29	Do. do. do. Art. 3...	Vol. XV, p. 225.
30	Manusaradhammasattham comp. to Mânava-Dharma-sâśtram. By Dr. A. Führer.	Vol. XV, p. 329.
31	Do. do. Part 2 ...	Vol. XV, p. 371.
32	Bâṇa : His Predecessors and Contemporaries. By Dr. P. Peterson.	Vol. XVI, Extra No. Appendix ii.
33	Neryôsangh's Sanskrit Translation of the Khorda-vesta. By A. Führer.	Vol. XVI, p. 74.
34	On the Aûchityâlamkâra of Kshemendra, with a Note on the Date of Patañjali. By Dr. P. Peterson.	Vol. XVI, p. 167.
35	A Note on Bâdarâyaṇa, the Author of the Brahma-sûtras. By the Hon'ble K. T. Telang.	Vol. XVI, p. 190.
36	The Date of Patañjali : A Reply to Professor Peterson. By R. G. Bhandarkar.	Vol. XVI, p. 199.
37	Wilson Lectureship : Development of Language and of Sanskrit. By R. G. Bhandarkar.	Vol. XVI, p. 245.
38	Böthlingk's Indische Sprüche: variants, &c., by Pandit Durgâprasâda.	Vol. XVI, p. 361.
39	On the Sûktimuktâvali of Jalhaṇa. By Professor P. Peterson.	Vol. XVII, No. XLVI p. 57.
40	Nyâyabinduṭîkâ of Dharmottarâchârya. By Dr. P. Peterson.	Vol. XVII, No. XLVII p. 47.
41	Pûrṇavarmâ and Śañkarâchârya. By K. T. Telang..	Vol. XVII, No. XLVII p. 63.
42	Gleanings from the Śârîraka Bhâshya of Śañkarâ-chârya. By the Hon'ble Mr. K. T. Telang.	Vol. XVIII, p. 1.
43	Dharmakîrti and Śañkarâchârya. By K. B. Pathak...	Vol. XVIII, p. 88.
44	Courtship in Ancient India. By Dr. P. Peterson ...	Vol. XVIII, p. 109.
45	Subandhu and Kumârila. By K. T. Telang ...	Vol. XVIII, p. 147.

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Serial No.	Names of the Papers with their Authors.	References.
46	Bhartṛihari and Kumârila. By K. B. Pathak ...	Vol. XVIII, p. 213.
47	A First Century Account of the Birth of Buddha. By Dr. P. Peterson.	Vol. XVIII, p. 282.
48	The Philosophy of the Vedânta in its Relation to the Occidental Metaphysics. By Dr. Paul Deussen.	Vol. XVIII, p. 330.
49	Was Bhartṛihari a Buddhist ? By K. B. Pathak ...	Vol. XVIII, p. 341.
50	Pâraskara Gṛihyasûtras and the Sacred Books of the East. By H. H. Dhruva.	Vol. XIX, p. 24.
51	On the Date of Kâlidâsa. By K. B. Pathak ...	Vol. XIX, p. 35.
52	On the Authorship of the Nyâyabindu. By K. B. Pathak.	Vol. XIX, p. 47.
53	The Progress and Development of the Aryan Speech (Wilson Lectureship). By H. H. Dhruva.	Vol. XIX, p. 76.
54	Interpretation of Certain Passages in the Panchasiddhântikâ of Varâha-mihir. By M. P. Kharegat, I.C.S.	Vol. XIX, p. 109.
55	A Historical Survey of Indian Logic. By M. R. Bodas.	Vol. XIX, p. 306.
56	A Chapter from the Tâṇḍya Brâhmaṇa of the Sâma-Veda and the Lâtyâyanasutras on the Admission of the Non-Aryans to the Aryan Society in the Vedic Age. By Rajaram Shastri Bhagvat.	Vol. XIX, p. 357.
57	Nṛipatungâs Kavirâjamârga. By K. B. Pathak ...	Vol. XX, p. 22.
58	Dr. G. Thibaut on the Śânkarabhâshya. By T. R. Amalnerkar.	Vol. XX, p. 49.
59	The Era of Yudhishṭhira. By R. R. Bhagvat ...	Vol. XX, p. 150.
60	Three Interesting Vedic Hymns. By R. R. Bhagvat	Vol. XX, p. 234.
61	On the Date of the Poet Mâgha. By K. B. Pathak...	Vol. XX, p. 303.
62	Sanhitâ of the Ṛig-Veda searched. By R. R. Bhagvat.	Vol. XX, p. 307.
63	On the Râghavapâṇḍavîya : A Reply to Professor Max Müller. By K. B. Pathak.	Vol. XXI, p. 1.
64	Apastamba and Bâuddhâyana. By K. B. Pathak ...	Vol. XXI, p. 19.
65	Astronomy in its Bearing on the Antiquity of the Aryans. By V. B. Ketkar.	Vol. XXI, p. 24.

APPENDIX B.

STATEMENT SHOWING PAPERS ON THE *Languages allied* TO *Sanskrit* IN THE JOURNALS OF THE B. B. R. A. S.

Serial No.	Names of the Papers and the Authors.	References.
1	An Account of the Parisnath Gawricha worshipped in the Desert of Parker, with Remarks on the Present Mode of Worship of the Idol. By James Macmurdo.	Trans. Lit. Soc., Vol. I, p. 198.
2	Plan of a Comparative Vocabulary of the Indian Languages. By Sir James Mackintosh.	Trans. Lit. Soc., Vol. I, p. 330.
3	An Essay on the Vernacular Literature of the Marathas. By the Rev. Dr. Stevenson.	B. B. R. A. S. Journ., Vol. I, p. 1.
4	An Essay on the Language of the Aboriginal Hindus. By the Rev. Dr. Stevenson.	Vol. I, p. 103.
5	A Collection of Words from the Language of the Todas on the Nilgiri Hills. By the Rev. Dr. Stevenson.	Vol. I, p. 155.
6	The Story of Tukaram from the Marathi Prakrit, with an Introduction. By the Rev. J. M. Mitchell.	Vol. III, pt. I, p. 1.
7	Remarks on the Origin and Languages of the Aborigines of the Nilgiris, &c. By the Rev. B. Schmidt.	Vol. III, pt. I, p. 50.
8	Observations on the Grammatical Structure of the Vernacular Languages of India. By the Rev. Dr. Stevenson.	Vol. III, pt. I, p. 71.
9	Marathi Works composed by the Portuguese. By the Rev. J. M. Mitchell.	Vol. III, pt. I, p. 132.
10	Observations on the Grammatical Structure of the Vernacular Languages of India. By the Rev. Dr. Stevenson.	Vol. III, pt. II, p. 1.
11	Do. do. do.	Vol. III, pt. II, p. 196.
12	Do. do. do. No. 4 (The Pronoun).	Vol. IV, p. 15.
13	Comparative Vocabulary of the Non-Sanskrit Vocables of the Vernacular Languages of India. By the Rev. J. Stevenson.	Vol. IV, p. 117.
14	Do. do. do. (Part 2).	Vol. IV, p. 319.
15	The Basava Purâṇa of the Lingaits: Translated by the Rev. G. Würth.	Vol. VIII, p. 65.

APPENDIX B—*contd.*

Serial No.	Names of the Papers and the Authors.	References.
16	The Channabasava Purâṇa of the Lingaits: Translated by the Rev. G. Würth.	Vol. VIII, p. 98.
17	Note on Mukundarâja. By Dr. Bhau Daji	Vol. IX, p. 166.
18	Pâli and other Dialects of the Period. By R. G. Bhandarkar.	Vol. XVI, p. 275.
19	Relation between Sanskrit, Pâli, the Prâkṛits and the Modern Vernaculars. By R. G. Bhandarkar.	Vol. XVI, p. 314.
20	Prâkṛits and the Apabhraṃśa (Wilson Lectureship). By R. G. Bhandarkar.	Vol. XVII, No. xlvi, p. 1.
21	Phonology of the Vernaculars of Northern India. By Dr. R. G. Bhandarkar.	Vol. XVII, No. xlvii, p. 99.
22	A Note on the Growth of the Marathi Literature. By the Hon'ble Mr. Justice M. G. Ranade.	Vol. XX, p. 78.
23	Introduction to the Peshwa's Diaries. By the Hon'ble Mr. Justice M. G. Ranade.	Vol. XX, p. 448.

3.—*On the Search for Sanskrit Manuscripts in the Bombay Circle.*

By Prof. S. R. Bhandarkar, M.A.

Towards the end of October 1903, I was packed off suddenly, without any previous intimation whatsoever, to Central India and Rajputana, being deputed "on special duty to make a preliminary tour" through those and the Central Provinces "with a view to enable me to report what further operations are required for the thorough investigation of, and the cataloguing of, the Sanskrit manuscripts in the Bhândârs in those provinces." It came about in this way. The Agent to the Governor-General, Central India, had some months previously suggested to the Government of India that it was desirable that steps should be taken to catalogue the Sanskrit manuscripts in Central India, large numbers of which are believed to exist in that Agency, both in private libraries and in temple records. This matter was referred to my colleague, Prof. Pathak, and myself, as Central India, Rajputana and the Central Provinces were attached to the Bombay Circle when the total grant for the search for Sanskrit manuscripts was re-distributed by the Government of India in 1879. As a result of our reports I was ordered to make the preliminary tour referred to. It was to be a tour of three months, and I returned towards the end of January of last year, doing within that period as many places as it was possible for me to do. The report I made of my tour was printed, and at my request copies were distributed to certain scholars and public institutions. In forwarding the report to Government the head of my department recommended that I should be sent on a year's tour again from the beginning of the present year.

It was at this stage that our Secretary appealed to me for a paper on the present occasion. I mentioned to him the tour I had made and the tour on which I expected to be sent again and said that it was unfortunately not likely that I should be in Bombay to witness the present celebration. This, instead of making him give me over, put into his mind the idea of proposing that I should write something in connection with the search for Sanskrit manuscripts and though I did not then definitely agree to the proposal I found my name put in the tentative programme. After that I did not like to refuse.

Looking with a natural curiosity into the published account of a similar celebration by our sister institution on the Bengal side,

I found mention made of a creditable amount of work done both as regards the publication of Sanskrit works and the search for Sanskrit manuscripts. In connection with the latter the Bengal Asiatic Society purchased a large number of manuscripts and also issued catalogues of private libraries of manuscripts "in order to bring to light the treasures of Sanskrit-lore buried in those libraries." The catalogues published and called "Notices of Sanskrit MSS." do not merely give the names of the works and of the authors and the numbers of leaves, &c., but give other information besides, especially abstracts of contents. Aufrecht has praised them very highly. It is not, however, by means of its own funds that the Society has been able to do the work both of the publication of texts and of the search for manuscripts, but by means of funds set apart by Government for that purpose and placed at the disposal of the Society. Work corresponding to it has on this side been done by Government direct through its Educational Department and its own Educational Officers. It might, therefore, be thought that the subject of the search for Sanskrit manuscripts would have no more intimate connection with the Bombay Asiatic Society than that of a scientific interest merely. Yet the Society has done what little it could in this line also. It published as an extra No. of its Journal Dr. Bühler's detailed report of a tour in search for Sanskrit manuscripts made in Kaśmir, Rajputana and Central India, which report Dr. Aufrecht calls "a publication of great importance." Later, Dr. Peterson's reports on the search for the years 1882-83, 1883-84, 1884-86, and 1886-92 were also published as extra Nos. of the Journal. The Society has, moreover, got a small collection of manuscripts presented to it, of a part of which a list has been recently issued.

It would not be out of place here to mention a few of the most important points in the reports just referred to as having been published under the auspices of the Society.

Dr. Bühler's Kaśmir report is replete with information. There is in it an interesting account of the Brahmans of that province and of the manuscripts seen there. The account given of some of the manuscripts acquired there for Government includes valuable information about certain poets and their works, such as Ratnâkara, Kshemendra, Bilhaṇa, Maṅkha and the Râjataraṅgiṇî, and about the literature relating to Alaṁkâra and the Spanda and Pratyabhijñâ shastras. The report further contains a few notes on the Kaśmîrî language also. The list of manuscripts purchased is accompanied by copious extracts from some of them.

In Dr. Peterson's reports also many interesting finds are reported and many works and authors, Jaina as well as Brâhmaṇa, are noticed. The value of the reports is further enhanced by very useful and

important appendices. In addition to the lists of manuscripts purchased for Government and copious extracts from them, the appendices contain the following :—

Extracts from manuscripts belonging to their Highnesses the Maharajahs of Udaipur and Ulwar, and from books preserved in libraries at Ahmedabad, Boondi, Kotah, Indore and Cambay.

Catalogue of the palm-leaf manuscripts in the Śântinâth Bhândâr, Cambay.

An Index of Books to the first three reports, which, however, does not include the manuscripts purchased for Government.

A very helpful Index of Authors "in which an endeavour has been made to present in a form convenient for reference all the information about the various writers gleaned from the extracts furnished with the first three reports," supplemented, wherever possible and desirable, from other sources.

The subject of the search divides itself into two branches : (1) purchase of manuscripts for Government and publishing lists of them and (2) examining private collections and making their treasures known by the publication of catalogues. Taking a general survey of the whole work done in the Bombay Circle in connection with it we find that as regards purchase the success, as I shall show later on, has been very marked. Drs. Bühler, Kielhorn, Bhandarkar and Peterson sent their agents to different places for the purchase of manuscripts and they themselves paid visits to several places of longer or shorter duration. As a result a very large number of manuscripts has been purchased for Government and copies made of a number of such as the owners would not part with. Lists have been published of these accompanied by reports and some of the earliest of these reports and lists have been reprinted in Gough's Records of Ancient Sanskrit Literature. Not a few of the later reports, including those published by the Society, contain a great deal of very valuable literary and historical information gathered from a pretty close examination of the contents of a few of the manuscripts. Copious extracts from the manuscripts purchased also accompany these reports.

Not much has, however, been done as regards the publication of catalogues of manuscripts in private libraries, so far as the published results go. Dr. Bühler published four fascicles of a Catalogue of Sanskrit Manuscripts contained in the private libraries of Gujarat, Kathiavad, Kachchh, Sindh and Khandesh ; and Dr. Kielhorn a Catalogue of Sanskrit Manuscripts existing in the Central Provinces and Fascicle I. of a Catalogue of Sanskrit Manuscripts

in the Southern Division of the Bombay Presidency. These do not give such abstracts and extracts as are given in Rajendralal's "Notices", for instance, and are therefore not of as much value as they would otherwise have been. Besides these, however, there have been published the extracts from manuscripts and the list of palm-leaf manuscripts in the Śântinâth Bhândâr at Cambay noticed above and three more catalogues of private libraries. A catalogue of manuscripts in the library of H. H. the Maharaj of Bikaner was published by Dr. Rajendralal before Rajputana was attached to the Bombay Circle. A similar catalogue of Sanskrit manuscripts in the library of H. H. the Maharaj of Alwar was published by Dr. Peterson and Part I. of lists of Sanskrit manuscripts in private libraries in the Bombay Presidency by Dr. Bhandarkar. These do not give merely the names of the works, the numbers of leaves, &c., but extracts also. In addition to these catalogues actually published there must have been, there are reasons to believe, some more lists and catalogues prepared, which have remained in manuscript, the scholars under whose superintendence they were prepared not having been able to publish them before their retirement. Dr. Bühler in one place refers to lists that were being made under his superintendence according to Dr. Rajendralal's scheme and in another place (Report of 8th June 1880) to a detailed report of his tour in Rajputana in 1873-74 which he had prepared for publication. This last would, I doubt not, have been as important as his Kaśmir report, and we cannot but regret the fact that he died without publishing it. Drs. Kielhorn and Bhandarkar too call two of the volumes they have published "Fascicle I." and "Part I.", clearly implying thereby that there were other fascicles and parts to follow.

A few remarks now as regards my own experience and future prospects of the search. In the history of the Bengal Asiatic Society, written by Dr. Rajendralal Mitra for the centenary of that Society, he in one place remarks that "Sanskrit manuscripts are not marketable articles, and the sanctity attached to them by the people of this country render them extremely difficult of access." That is as nearly true now as in the beginning of 1884. One instance will show how true it is now. When I started on my last tour, I first went to Indore and there learnt of a collection of manuscripts belonging to a Sardar there. He was out of Indore at the time and I went to his house to see if I could arrange with his agent to let me have a look at his manuscripts. On entering his compound I noticed that a great many things in the house had been spread out in the compound for exposing to the sun as a necessary preparation for the house being occupied again after the first severe epidemic of plague at Indore. Amongst the things spread out I noticed a

number of good old manuscripts, browned with age, of important works of Vedic, sacrificial and other literature. They were not the manuscripts I sought, but, as it proved to be the case, much more valuable, and were discovered thus very fortuitously. They belonged, I was told, to a Paurâṇika who had then recently died of plague and had been a dependent of the Sardar. On meeting the Sardar a few days after I told him that the manuscripts were of some importance and that he should see that they were properly cared for and preserved. I was surprised to hear from him, when he readily promised to do so, that up to the death of the Paurâṇika he never knew that he (the Paurâṇika) was possessed of such valuable manuscripts. The Paurâṇika had kept it a secret from him, though he must have known that his master took interest in Sanskrit literature.

But things are much better now than they were in the beginning of the search. There is in the library of Elphinstone College a small collection of manuscripts made for Government in 1866-68, a list of which was published by Dr. Bühler in a recent volume of the Journal of the German Oriental Society. The manuscripts are mostly copies made for Government and seem to have been made not always from good originals, but from such as were available, whether good or bad. The leaves of the originals were in some cases in great disorder or mixed up with leaves of other manuscripts and the copies represent exactly the state in which the originals were. With such manuscripts scholars engaged in the search had to content themselves at first.

In spite of all drawbacks, however, and in spite of what a writer in the pages of the Journal of the Sarvajanika Sabha about 22 years ago wrote as to the best manuscripts having gone to Germany, one result of the operations in connection with the search in the Bombay Circle has been the vast and splendid collection of manuscripts deposited in the Deccan College, Poona. So far back as February, 1878, the Government of India remarked with reference to it that "in Bombay the results were most satisfactory." And since then there have been large additions for so many years, including a number of old palm-leaf manuscripts. It would be no exaggeration to say that a critical edition of hardly a single Sanskrit work is published anywhere in the world at the present day without drawing upon the resources of this collection.

It is now not very easy to come across manuscripts of works not represented in the collection, and some years ago Dr. Bhandarkar consequently reported that twice he had to refund into the Government treasury an unused balance out of the annual grant at his disposal and made the suggestion that the regular grant for the search for manuscripts, which was much larger then than at present, should be discontinued and that special grants should be made whenever the

Professors of Sanskrit at the two Government Colleges came across manuscripts worth buying. The suggestion was not carried out exactly in that way, but the grant was considerably reduced. Soon after occurred the death of Mr. Bhagvandas Kevaldas. He had been engaged as an agent for the purchase of manuscripts almost from the very beginning and had consequently a long experience of the business, knew what was represented already in the Government collection and what new works would therefore be worth purchasing, and could, with a trader's unerring instinct, scent new manuscripts. Not a little of the credit of the Government collection is due to him; and Dr. Peterson has, by the dedication of his Report for 1886-92, borne witness to the value of his assistance.

But there are yet not a few works mentioned and frequently quoted from in the available Sanskrit literature, which to scholars are

"Still a hope, a love;
Still longed for, never seen."

Dr. Caland who has undertaken an edition of the Baudhâyana Śrauta Sûtra is in search of a manuscript of the complete work. Dr. Pischel has just reminded me of Guṇâḍhya's Bṛihatkathâ in the Paiśâchî dialect, which was sanskritised almost simultaneously by two noted Kaśmirian poets of old, though there is hardly any necessity for one engaged in the search to be reminded of it. A few others are: Mânavadharmasûtra, Bhartṛihari's Commentary on the Mahâbhâshya, Râvaṇa's Bhâshyas on the Ṛig and Yajur Vedas, a fresh manuscript of the Paippalâda Śâkhâ of the Atharva Veda, Bodhâyana's Vṛitti on the Vedânta Sûtras,—but I need not multiply the list. The hope of ever discovering these and others like them rests on the contents of all private libraries throughout the land being carefully examined by scholars. And even if they were not to be discovered, such an examination and the publication of catalogues as a result of it would be of the utmost use and value to scholars. But there is a great deal of unwillingness on the part of the owners to allow their manuscripts to see the light. Some of the causes of this unwillingness and a few instances of it I have referred to in my report to Government. First, there is the dislike to a stranger's eyes falling on what is treasured, howsoever carelessly, as a great possession. Secondly, there is a general distrust. In some way or other the manuscripts in a man's possession will not, it is thought, be allowed to remain with him long if once they come to the knowledge of others. And those, who know or have heard of the purchase of manuscripts by scholars either living in India or temporarily visiting it, allege their fear that the manuscripts would further find their way out of the country altogether. This last is not to be wondered at when the writer in the Sarvajanik Sabha's

Journal, referred to above, made the statement already noticed and a proposal was once actually made in 1868, when the search was first ordered, that the collections made for Government should be shipped to Europe. The owners cannot, of course, be expected to show that disinterested desire for the preservation of Sanskrit literature, which would make them feel that they had rather see the manuscripts in the possession of others and by them preserved carefully than that they should be lost and destroyed for want of due care on their own part.

Under these circumstances, there must spring up a close intimacy, such as would leave not a shadow of distrust, between the owners and the scholars who would examine their collections or some one on their behalf. That is a work of time and to that scholars must now devote themselves, if they wish to discover the works and manuscripts they so ardently long for, should they still be in existence, as some of them needs must be.

I shall conclude these remarks with a Praśasti from a manuscript I found in Gwalior. It is a manuscript of the medical work, called Vikramavilâsa, mentioned at page 8 of the report of my tour. I have had a temporary loan of the manuscript by the kindness of the Resident at Gwalior and of the Gwalior Durbar and have got a copy made of the praśasti.

Extracts from the MS. of Vikramavilâsa belonging to the State Collection at Gwalior.

Fol. 1 b—2b.

श्रीगणेशाय नमः ॥

श्रीया(मा)न् सर्वसुरासुरैरपि नतः कार्यादितः कार्यकृ-
द्विघ्नारण्यदवाग्निरीशतनयः सर्वार्थसिद्धिप्रदः ॥
अन्तर्न्यस्ततमस्त्ववारणघटानिर्मूलनाकेसरी
ता(ना)गास्यो वितनोतु वः सुरवरः सत्कृत्य सन्मंगलम् ॥ १ ॥
येनाकारि निरंतरं रियु(पु)वधूनै(ने)त्राम्बुसिक्ता मही
सर्वाग्येकपुरीव शासनवशा पाथोधिमर्यादया ॥
आवासः खलु संपदां प्रविलसद्वीरश्रिया सेवितो
भूपस्तोमरवंशभूषणमणि[:] श्री(श्री)देवम(व)र्म्मा भवत् ॥ २ ॥
सुतानां ननु तस्येष्टमजनिष्ट चतुष्टयम् ॥ धर्मार्थकाममोक्षाणां चतुष्टयमिवापरम् ॥ ३ ॥
वीरसिंह इतिपूर्वजोभवत्कीर्त्यते तदनुजो हरसिंहः ॥
न(ना?)मतस्तदनुभूः शिववर्म्मा संपदां निधिरतोचलवर्म्मा ॥ ४ ॥
वीराणां धुरि कीर्त्तनीयचरितः को वीरसिंहं विना
प्रोदा(द्दा)मद्युतिदुर्नि[री]क्षचरितश्चंडप्रतापानलः॥
उद्दंडः परिभूय वारणघटावीरश्रियालिंगितो
यो वीरात्(न्) शिरसा विनैव समरे प्राणीनटत्कोटिशः ॥ ५ ॥

वीरसिंहे धराधीशे या नीतिः सा न कुत्रचित् ॥ यस्य द्वारमसेवंत गजव्याजेन भूधराः ॥ ६ ॥
विदितसकलधर्मा प्रोल्लसच्चारुकर्मा विहितसुजनशर्मा सन्नयानीतदर्मा ॥
प्रतिहतरिपुनर्मा विप्रसंदत्तभर्मा सग(म)जनि शिववर्मा ज्ञातपाण्डित्यमर्मा ॥ ७ ॥
बलारिशिववर्माणौ पुरा धात्रा तुलाधृतौ ॥ पूर्वो लघुरगात्सर्गा(त्स्वर्ग)माललम्बे भुवं परः ॥ ८ ॥
तत्खड्गधारा धारा च स्वस्तटिन्या उभे वरे ॥ यत्र मग्ना न मज्जन्ति पुनः संसारवार(रि)धौ ॥ ९ ॥
तस्मात्समुद्र(द्रा)दिव रत्नजातं भूया(पा)लरत्नं नृपरत्नपालः ॥
संभूय शोभां महतीं ततान कुले समस्ते ननु तोमराणाम् ॥ १० ॥
कीर्तिश्रीर्ननु रत्नपालनृपतेः सेयं समुज्जं(ज्जृं)भते
यामालोक्य वितर्कयंति नितरां सत्कोविदाः सर्वतः ॥
कर्पूरैः किमपूरि किं त्रिभुवनं श्रीखंडखंडै(ड)र्द्रवै-
रालेपि प्रचलत्सुधांसु(शु)किरणैराछा(च्छा)दि किं सर्वतः ॥ ११ ॥
सर्वासु दिक्षु प्रथितः पृथिव्यां श्रीरत्नपालप्रभुरेव दाता ॥
इती[व] पूर्वा दिगसौ प्रभाते गृह्णा (ह्णा)त्ययोगोलकमर्कबिम्बम् ॥ १२ ॥
यौ(यै)राराधि शिवा शिवानि ददती तेषां किमन्यः सुरः
छाया कल्पतरोरलंभि खलु यैस्तेषां किमन्यस्तरुः ॥
यैरासादि लसत्सुवर्णशिखरी तेषां किमन्यो गिरि-
र्यैरालोकि च रत्नपालनृपतिस्तेषां किमन्योनृपः ॥ १३ ॥
कीर्तिश्च वैरिवामी(मा)श्च परे पारे महोदधे [:] ॥ येन दोर्दंडचंडेन सममेव निवासिताः ॥ १४ ॥
वरं गण्यते सुधीः सुरतरंगिनी(णी)वालुकाः ॥ पर(रं) कलयते वरं जलदवारिबिंदूनपि ॥
भवंति मितिमध्यगाः सकलतारकाः कस्यचित्र रत्नजगतीपतेर्गुणपयोधिसंख्याविधिः ॥ १५ ॥
सुतो विक्रमसेनोभूत्तस्य विक्रमवारिधिः ॥ जवनीवदनांभोजवनीमुद्रासुधाकरः ॥ १६ ॥
विक्रमस्य न तु विक्रमे समो रायरीशशकखंडने नृपः ॥
योनयद्यवनकामिनीमुखं रक्तमेव पुनरुक्तरक्तताम् ॥ १७ ॥
दातॄणां तरणीन्दुवंशसरणिः सत्यं प्रसिद्धा खनिर्हीता विक्रमसेनभूपसदृशः कश्चिन्न दृष्टः पुनः ॥
यष्टकैः परितक्ष्य कांचनमयैदा(र्दा)रिद्रमुद्रां द्र(द्र)ढं भूपालीकुरु[ते]र्थिनस्तदनिशं जागर्ति भूमं-
डले ॥ १८ ॥
चिंतामणिश्चिंतितमेव दत्ते संकल्पितं कल्पतरुर्ददाति ॥
अचिंतिताकल्पितदानदक्षः सविक्रमो विक्रमसेनभूपः ॥ १९ ॥
विलोक्य नेत्रविस्तारं यदरातिमृगीदृशां ॥
काननान्तर्हृहान्याति मार्गमीर्ष्या(र्ष्या)कदथि(र्थि) तं ॥ २० ॥
कोदंडं कलयंति के न जगतीनाथा विना[-]स्पदास्तेषां विक्रमसेनभूपतिलको धुर्यः परं गण्यते ॥
येनारातिवधूमुखेषु नितरां नेत्राम्बुपूर्णेष्वहो दत्ता कज्जलकालिमा खलु पुनर्नो नेत्रयोः कज्जलं ॥२१॥
गदनिपीडितलोकविलोकनं ननु विधाय सदा करुणाकर : ॥
तदुपसंहृतितंत्रमचीकरत्स खलु विक्रमसेनमहीपति : ॥ २२ ॥
दृष्ट्वा मुहुश्चरकसुश्रुतवाग्भटादीन् हारीतभेडकलिकाखरनादवृंदं ॥
विश्वोपकारकरणैकपरायणोयं ग्रंथं व्यधत्त ननु विक्रमसेनभूपः ॥ २३ ॥

Fol. 230 a—b.

श्री

विक्रमसेनविभुना विभुनायकेन नानामुनिप्रकटितानि [⌣–⌣] वीक्ष्य
ग्रंथस्तु विक्रमविलास इति प्रसिद्धो विस्तारितो जगति कीर्त्तिविकाशनाय ॥ १ ॥
अब्दे ष[ड्]ग्रहपाथोधिनादयुक्तांकसंज्ञिते । ज्येष्टे(ष्ठे)शुक्लत्रयोदश्यां ग्रथ (ग्रंथः) संपूर्णतां गतः
आयुर्वेदविधानविद्विवर(रव)नौ भूरिप्रबन्धाः कृताः
यद्यप्येव तथापि का[पि ?] सरणिर्भिन्नेयमाभासते ।
ग्रंथे विक्रमसेनदेवविहिते यं वीक्ष्य वैद्यप्रियं
प्रष्टुं नान्यनिबंधनं कलयते विद्वान् भिषक्कुक्कुवः ॥ ३ ॥
यावद्रामकथासुधा कथयते विद्वज्जनानां श्रुती [:] यावन्निर्जरनिर्झरिण्यपि जगत्पोपूयते पावनी ।
सूर्याचं(चं)द्रमसौ च यावदखिलं ध्नंतौ तमो राजतस्तावद्विक्रमसेनदेवजगतीजानिश्चिरं जीवतु ॥४॥
जीमूता[:]सुखकारि वारि परितो मुंचंतु पृथ्वी सदा धान्यानां जनिमादधातु जगतीनाथो भुवं रक्षतु ।
संतः संतु सुखैकसेवनपरा धर्मः परं वर्द्धतां भूक्षेपैः परकार्यपाटनपटुः प्राप्नोतु नाशं खलः ॥ ५ ॥
भूपाला जगती[र्ती] पांतु प्रजा नंदंतु सर्वतः वेदाभ्यासरता विप्रा दुह्यंतां धेनवः शुभाः ॥ ६ ॥
इति विक्रमविलासः ग्रंथ[:] समाप्तः ॥ ॥ शुभमस्तु लेखकपाठकयोः ॥ संवत् १८७३का चैत्र
कृष्ण २ भौमवासरान्वितायां लिखितोयं ब्राह्मणरामलाल शुभं भूयात् ।

It will be seen that the genealogy given in the above extracts begins with Devavarman of the Tomara dynasty. He had four sons :— Vîrasiṁha, Harasiṁha, Śivavarman and Achalavarman. Vîrasimha became king. Śivavarman's bravery and learning are mentioned. But he is not mentioned as having ruled. His son was king Ratnapâla and Ratnapâla's son was king Vikramasena, the author of the present work. The work was completed in (Samvat) 1496 or 1440 A.D.

Vîrasimha is of course the king who founded the Tomara dynasty of Gwalior, the same to whom the Vîrasimhâvaloka and other works are attributed. Deo Brahma or Brahmadeo also (Cunningham's Archæological Survey of India, Vol. II, p. 302) must be the same as Devavarman (*see* Dr. Bhandarkar's Report for 1883-84, p. 86). Vikramasena was thus the grandson of a brother of Vîrasimha. Both he and his father were kings, but no other record of them seems to have turned up as yet.

XI. vii. 24 *purāṇam* seems to denote a separate work comparable to the Ṛig, Sāma or Yajurveda, and the attribution of its authorship to Vyāsa as a fifth Veda may be already implied. The regular Vedic use of the word in the singular, and its constant association with the *itihāsa*, show that there was originally but one *purāṇa* and that it and the *itihāsa* were regarded as forming a single whole. The word does not occur in the text of Pāṇini's *sûtras*, but is mentioned along with *ākhyāyikā* and *itihāsa* in the Vartika to P. IV. ii. 50, and, in the introduction to the Mahābhāshya, *itihāsa* and *purāṇam* (singular) are mentioned as part of the field of use of sound (*Sabdasya prayogavishaya*). It is therefore clear that down to C. 140 B. C. there was but one *purāṇa* and that it bore a specially close relation to the *itihāsa*. It is further to be inferred, from the etymology of the word *purāṇa*, that this work originally referred to the past alone and that therefore the prophetic strain of the modern *purāṇas* in relating matter subsequent to the Bhārata war was no feature of the original work. The earliest passage from which we may infer the existence of a number of *purāṇas* with different names is the reference to a *Bhavishyatpurāṇa* in Apastamba's Dharmasûtra (II. ix. 24, 6). A *purāṇa* uttered by Vayu, and dealing with the future as well as with the past, is cited in Mbh. III. 191, 16, and often in the Harivainśa, and Dr. Lüders has shown that the Padmapurāṇa is imitated in Mbh. III. 110 ff. (the story of Ṛishyaśringa). Elsewhere in the Mahābhārata, the authorship of *purāṇas* is ascribed to Romaharsha (XII. 319, 21), and even the eighteen *purāṇas* are mentioned as a group (XVIII. v. 46 and vi. 97), quite in the manner of the modern *purāṇas* themselves. Hopkins (The Great Epic of India, p. 50) holds that usually in the Mahābhārata there is no essential difference between *atīta*, *ākhyāna*, *purāṇa* and *itihāsa*. But the evidence of the Mahābhārata lacks definite chronological value for the question with which we are concerned.

As regards the scope of the one original *purāṇa*, which, as we have seen, still existed as an annex to the *itihāsa* in the second century B.C., we can appeal to the definition found in Vâyupurāṇa IV. 10 and in the parallel passages of other purāṇas.

Sargaśca pratisargaśca vaṁśo manvantarāṇi ca
Vaṁśānucaritaṁ caiva purâṇaṁ pañcalakshaṇaṁ

which explains the use of *pañcalakshaṇam* as a synonym of purāṇain in the Amarakoša (I. i. v. 6). According to this numeration a *purāṇa* should contain accounts of (1) primary creation, (2) secondary creation, (3) genealogies, (4) the Manvantaras, and (5) the doings of the great houses. The antiquity of the definition is vouched for by the fact that it applies very imperfectly to any of the existing *purāṇas*. But it is to be noted that the definition as given above is tautologous, inasmuch

as the doings of the great houses are mentioned separately from their genealogies. The reading *bhūmyādisamsthānam* given by Rāmāśrama, the commentator on Amara, is therefore to be preferred to the *vamśānucaritam* of the vulgate, and may roughly be translated by the word "cosmology." This fifth topic would include those geographical and astronomical sections which bear as primitive a stamp as any part of the extant *purāṇas*, and which fall under none of the other heads of the definition.

To sum up the results so far attained, the Indian evidence shows that from the later Vedic period to at least the second century B.C. there existed a single work known as *purāṇa*, which was attached to the *itihāsa*, and dealt with cosmogony, genealogies, the Manvantaras, and cosmology. How far are these results confirmed by the testimony of the Greeks and especially of Megasthenes ?

The latter, in the first place, reported that the Indians had legends of their previous history which were communicated to him by their learned men (Diod. Sic. II. 35—42).

As regards cosmogony Megasthenes did not report in full the views of the Indians, which he regarded as "very crude," but only mentioned those points in which they agreed with the Greeks, as in believing that the world had a beginning and is liable to destruction, that it is in shape spherical, that the deity who made it and who governs it is diffused through all its parts, that various first principles operate in the universe, that water was the principle employed in the making of the world, and that there is a fifth element from which heaven and the stars were produced, and that the earth is placed in the centre of the universe. (Strabo XV. i. 59). He does not expressly distinguish between primary and secondary creation, but the origin of the world from water implies the latter, and its spherical shape suggests Brahma's egg. It may be said, therefore, that the principal cosmogonic ideas of the *purāṇas* were already familiar at the end of the 4th century B.C.

As regards history, Megasthenes learnt that the Indians regarded Dionysos (who is normally to be identified with Śiva) as the founder of their civilisation (Diod. Sic. II. 38 and Arrian Indica VII.) and the establisher of their line of kings of whom they reckoned 153(Arrian Indica IX. and Solinus LII. 5) or 154 (Pliny Nat. Hist. VI. xxi. 4—5) from Dionysos to Alexander the Great or Sandrokottos. It was pointed out long ago by Fergusson (J. Ras 1864) that the genealogy of the Sūryavamśa as it stands in the *Vishnupurāṇa* gives 92 names from Manu Vaivasvata (or 96 from Brahma) down to the great war, after which we have 30 + 15 + 9=54 names in the Magadha list down to Chandragupta, or a total of 146 or 150 names). One or two names additional to the

Vishnupurāṇa list can be obtained by comparing the statements of the different *purāṇas* with one another, and it is possible that one or two more to which no special legend was attached may have dropped out altogether. The total of the purānic list comes so very near to that given by Megasthenes that it is exceedingly probable that the former was known to the latter. It cannot be said that Lassen's conjectural identifications of Megasthenes' Spatembas, Boudyas and Kradeuas seem entirely satisfactory, though it is difficult to suggest anything better. In the second part of this paper I propose to test the proposition that the purānic list of kings existed in the time of Megasthenes, by inquiring how far the Rāmāyana, the oldest parts of which are generally admitted to be pre-Megasthenic, shows a knowledge of that list.

According to Arrian (Ind. IX), Megasthenes reported that the Indians reckoned 6,042 years from Dionysos to Sandrokottos, while Solinus (LII. 5) and the received text of Pliny (N. H. VI. xxi. 4—5) give 6,451¼ years and other MSS. of Pliny have 6,402½. The passages are :—

Ἀπο μενδη Διονυσου βασιλεας ἠριθμεον Ἰνδοι ἐς Σανδροκοττον τρεις και πεντηκοντα και ἑκατον, ἑτεαδε, δυο και τεσσαρακοντα και ἑξακισχιλια.

Pliny N. H. VI. 17, 59. Colliguntur a Libero patre ad Alexandrum magnum reges eorum CLIII, annis VI Mil. CCCCLI (v. l. c. cccii) adjiciunt et menses III.

Solinus. Ab hoc ad Alexandrum magnum numerantur annorum sex millia quadringenti quinquaginta unus, additis et amplius tribus mensibus.

As comparison of the passages shows, the reading most likely to have given rise to all these variations is that of some MSS. of Pliny, *viz.*, 6,402¼ years; but this cannot be made to agree with any system of Indian chronology that has come down to us. At the same time, the total is clearly not a mere invention, but was arrived at by adding up the years of individual reigns, for in the cases of Spatembas and Boudyas the length of the reign is given (Arr. Ind. VIII). The *purāṇas* themselves reckon 54 kings and 1,600 years from the great war to Chandragupta, or, roughly, three kings to a century. By this reckoning, if there were originally 100 kings before the great war, they would fill 3,333 years only instead of 4,800 years as Megasthenes' calculations require. He mentions three periods in which there were no kings, but the lengths of only two of these—one of 300 and the other of 120 years—have come down to us. His chronology does not appear to extend beyond the present age, and he shows no knowledge of the enormous numbers given in the modern *purāṇas*. That the *yugas* of divine years are of relatively recent invention has often been observed. (*See* let Wörterb. s. v. *Krita*, and Tilak, The Arctic Home in the

Vedas, pp. 421—6.) According to the modern system, the succession of the four ages is peculiar to Bhāratavarsha, and each *Mahāyuga*, or set of four ages, passes into the next without any marked break up to the end of the day of Brahma which consists of 1,000 *Mahāyugas*. Moreover, the *Manvantaras* are incommensurable with the *yugas*, for each *Manvantara* being one-fourteenth of the day of Brahma, must consist of $71\frac{2}{7}$ *Mahāyugas*, so that each Manu, with his seven *Ṛishis*, his Indra, &c., would perish in the Tretā age of his seventy-second *Mahāyuga*, leaving the world kingless and lawless until the beginning of the next Kṛita age.

It seems probable that originally both *Manvantara* and *Mahāyuga* ended with the day of Brahma, and were, in fact, identical with the latter. If this were so, it follows that Megasthenes, who was acquainted with the secondary creation of the world from water, which takes place at the beginning of each day of Brahma, must also have known the *Manvantaras*.

But it is, perhaps, in relation to the fifth purāṇic topic (cosmology) that the evidence of Megasthenes' acquaintance with a *purāṇa* is most convincing. The section in question in most *purāṇas* contains (*a*) a description of the seven *dvīpas* and especially of *Jambudvīpa* and its divisions ; (*b*) a detailed description of Bhāratavarsha with its mountains, rivers and tribes ; (*c*) a description of the underworld and the hells ; (*d*) a description of the seven heavens ; and (*e*) a description of the sun, moon and stars and of certain physical phenomena. Megasthenes does not distinctly refer to the seven *dvīpas* or to the astronomical views of the Indians, but it is clear from his remark that their ideas about physical phenomena were very crude (Strabo XV. i. 50) that he had some statement of their views before him, though he did not think it of sufficient interest to be reproduced. But the seven *dvīpas* were known to the *Mahābhāshya* (Introd. *Saptadvīpī Vasumatī*), and the astronomical views of the *purāṇas* fully bear out Megasthenes' slighting reference to them. His description of India was, undoubtedly, based on a written account of the country, which included lists of the rivers and of the tribes inhabiting it. For his enumeration of 58 rivers and 118 tribes excited the astonishment of Arrian (Ind. V. and VII.) who cannot understand how he arrived at such a precise estimate when he had not visited the greater part of India. It is a certain inference from this that Megasthenes had before him a regular catalogue of rivers and tribes, though he did not expressly mention the fact. He specified 15 tributaries of the Indus (Arrian Anab. V. vi. 2—11 and Ind. IV.) and 19 of the Ganges (Pliny N. H. VI. xxi. and Arrian Indica IV.), but the names of the other 22 rivers have not come down to us. The names of nearly 100 tribes are given by Pliny and Arrian, though,

owing to the corruption of Pliny's text, many of them have not been identified.

Further, it is clear that Megasthenes was acquainted with Indian views as to the underworld and the heavens, for he says that "they wrap up their doctrines about immortality and future judgment and kindred topics, in allegories after the manner of Plato," and that "even such of them as are of superior culture and refinement inculcate such superstitions regarding Hades as they consider favourable to piety and holiness of life."

To sum up, then, Megasthenes was acquainted with part at least of a purānic cosmogony, with a purānic list of kings and with a purānic description of the upper and lower worlds. It is a fair conclusion that he had before him the same *Purāṇa* that has already been shown to have existed from late Vedic times to the second century B.C., and the contents of which are more or less fully reproduced in the more primitive parts of the existing *purāṇas*. The common source of the *purāṇas*, therefore, was compiled not later than the last quarter of the 4th century B.C. Moreover, it was not composed much earlier than this, for, if we are right in holding that it included the genealogy of the Ikshvāku race, the mention of Śākya, Śuddhodana and Rātula or Śiddhārtha in the 114th to 116th places in the list shows that Buddha had been dead long enough for his family's precise position and date to have been forgotten. Moreover, the Magadha list is the only one that is continued down to Chandragupta, and the name *Māgadha* survived as that of a caste of professed genealogists in later times. Therefore, the genealogies of the kings, and presumably also the rest of the original *purāṇa*, were drawn up in Magadha after that State had become a great power, and possibly even after Chandragupta had made himself master of Northern India. In any case the original *purāṇa* may be regarded with some probability as a work of the 4th century B.C. The sources from which its genealogies were drawn are a matter for future investigation, but most of the earlier names were doubtless taken from Vedic works and from the epics. From the fact that to Megasthenes Dionysos was the founder of Indian civilisation, it may be inferred that the original *purāṇa* was a Śaiva work. It is quite possible that the genealogies and the lists of rivers and tribes were originally drawn up in prose. At some date, which is at present unknown, the original *purāna* was re-written in verse, while the original chronology gave place to the system of *Kalpas*, and the history subsequent to the great war was thrown into prophetic form. This second version was the common source of the extant *purānas*. The historical statements common to the Vishnu, Matsya, Vāyu and Bhāgavata end with the troubled times that followed the fall of the Gupta Empire,

and the origin of a plurality of *purāṇas* may therefore be referred to about the 6th century A.D., though of course some of the existing works may have been recast or added to later than this.

A very striking analogy to the mutual relations of the various *purāṇas* is to be found in the case of our own Saxon chronicle, which, as is well known, continued to be written up in various monasteries down to the reign of Stephen, though the additions made after the Norman conquest were independent of each other. Similarly, the copies of the original verse *purāṇa* that were possessed by the priests of the great centres of pilgrimage were altered and added to chiefly by the insertion of local legends, after the fall of a central Hindu Government had made communication between the different groups of Brahmans relatively difficult. In this way the *Brahmapurāṇa* may represent the Orissa version of the original work, just as the *Padma* may give that of Pushkara, the *Agni* that of Gayā, the *Varāha* that of Mathurā, the *Vāmana* that of *Thānesar*, the *Kurma* that of Benares, and the *Matsya* that of the Brahmans on the Narmada.

It may be permissible to hazard a few conjectures regarding the constant association of the *purāṇa* with the *itihāsa* in early Sanskrit works. Reference has already been made to the passage from the Chāndogyopanishad, where the *itihāsa* and *purāṇa* together are spoken of as a fifth Veda, which implies that they were both ascribed to Vyāsa. This belief may even underlie the mention of the *purāṇa* along with the Rig, Sama, Yajus and Metres in Ath-Veda XI. vii, 24. But however this may be, it was certainly familiar to the Mahābhārata, as Hopkins (The Great Epic of India, p. 53) has shown by citing the following verses :—

Adhītya caturo vedānt-āṅgān ākhyānapañcamān VII. ix. 29
Sāṅgopanishadān Vedāms catur ākhyānapañcamān III. 45. 8.
Sāngopanishadān Vedān Mahābhāratapañcamān.

It will be observed that, in the line last quoted, the Mahābhārata itself takes the place which in the other passages is assigned to the *ākhyāna*, which is a synonym of *itihāsa*. It seems to follow that the first half of the compound *itihāsapurāṇm* means the Mahābhārata, whether in approximately its present form or not. It would be thoroughly in accord with Indian practice to give to a collection of *itihāsas* the form of a series of insets in one main story, though the latter might doubtless have existed in a separate form at an earlier date. The original Bhāratī Kathā on this theory became the Mahābhārata when it was adopted as the framework for a collection of all known *itihāsas*, and the *purāṇa*, the date and scope of which we have already discussed, was added to it as an appendix. The collection of the *itihāsas* may, however, of course have taken place at an earlier date than the composition of the *purāṇa*. The relation of the Harivaiṅśa

to the Mahābhārata is very similar to that which I have supposed to exist between the *purāṇa* and the *itihāsa*, and the Harivainśa, in spite of its title, does not by any means exclusively deal with Krishṇa and his doings, but has rather the air of a *purāṇa* that has been adapted to a special purpose. I would hazard the conjecture that the Harivainśa is a Vaishṇav version of the original *purāṇa*, composed when the whole epic was given its strong Vaisṇhav colouring. The Harivainśa shows a special knowledge of places in Western India, and I should be inclined, for reasons which I have no space to set forth on this occasion, to date it about the second or third century A.D. in substantially its present form.

II. *How far are the purāṇic lists of kings known to the Rāmāyaṇa?*

It is generally admitted that the Rāmāyaṇa consists of an older nucleus in Books II—VI, to which Books I and VII have been added at a later date. I shall take the earlier and later portions separately for the purposes of this enquiry. In the older books, the allusions to purāṇic stories are extraordinarily few. I have noted only (1) the story of Asamanjas (II. xxxvi. 16) and (2) the genealogy of Rāma (II. cx). The mention of Śiśunāgas as guarding Ṛishyamūka in III. lxxiii. 32 and 35 is to be taken, with the commentator, as a reference to young elephants, while the prophecy of Niśākara in IV. lxii. bears on its face the marks of late origin, and is of interest only as showing that, when it was written, the *purāṇa* had already assumed a prophetic tone.

The story of Asamanjas belongs to the legend of the descent of the Ganges, which is told in Mahābhārata III. 106—109, and, doubtless, had a separate existence before it was incorporated into the *Mahābhārata* or *purāṇa*. The genealogy of Rāma in Rām II. cx (which is repeated with little variation in Rām I. lxx) requires more extended notice. The list of kings is as follows, the bracketed figures after the names showing at what place each name is found in the purāṇic list :—

1. Brahma	(1)	14. Māndhātṛi	(25)	27. Sankhana	(77)
2. Marīchi		15. Susandhi	(93)	28. Sudarśana	(88)
3. Kaśyapa		16. Dhruvasandhi	(87)	29. Agnivarna	(89)
4. Manu Vaivasvata.	(5)	17. Bharata		30. Śighraga	(90)
		18. Asita	(43?)	31. Maru	(91)
5. Ikshvāku	(6)	19. Sagara	(44)	32. Praśuśruva	(92)
6. Kukshi	(7)	20. Asamañja	(45)	33. Ambarīsha	(50)
7. Vikukshi		21. Amśumat	(46)	34. Nahusha	
8. Bāna		22. Dilipa	(47)	35. Nābhāga	(49)
9. Anaraṇya	(29)	23. Bhagīratha	(48)	36. Aja	(65)
10. Pṛithu	(10)	24. Kakutstha	(8)	37. Daśaratha	(66)
11. Triśanku	(35)	25. Raghu	(64)	38. Rāma	(67)
12. Dhundhumāra	(17)	26. Kalmāshapāda Saudāsa	(56)		
13. Yuvanāśva	(24)				

All the royal names of the Rāmāyaṇa list, except Bāṇa, Bharata and Nahusha, are found in the purāṇic list, but often in a different order. Both lists point to a common original, and the question arises whether this original is more correctly represented by the Rāmāyaṇa list or by that of the *purānas*. Two facts seem to decide in favour of the latter—(1) that it is followed by Kālidāsa in the Raghuvamśa and (2) that it alone explains the patronymic of Kalmāshapāda Saudāsa, whose father Sudāsa is omitted from the Rāmāyaṇa list. There are only four batches of names in the order of which the two lists agree, *viz.*, (1) Yuvanāsva—Māndhātri, (2) Sagara—Bhagīratha, (3) Sudarśana—Praśuśruva, and (4) Aja—Rāma. In cases (1) and (4) the agreement is natural enough, and in case (2) it is accounted for by the legend of the descent of the Ganges, which binds all these generations together. But there is no obvious reason for the agreement in case (3), except fragmentary recollection of the purāṇic list by the compiler of the Rāmāyana list. In II. cxvi. of the Bengal text, Jābāli when arguing with Rāma mentions a number of kings who are again named by Vaśishṭha in II. cxix of the Bengal text, which is the parallel passage to II. cx of the Bombay text. It seems that the names were originally cited for argumentative purposes, and were subsequently worked up into a genealogy of Rāma which was put into the mouth of Vaśishṭha, first in II. cx and afterwards in I. lxx of the Bombay text. As we have already seen, the compiler of this genealogy was acquainted with the purāṇic list. The author of the original Rāmāyaṇa did not know the purāṇic list, and probably did not carry the detailed genealogy further back than Aja, though he doubtless knew the names of a few great ancestors, such as Ikshvāku, Kakutstha and Raghu, who had given a name to the family.

As regards the older books of the Rāmāyaṇa, therefore, our conclusion is that they are pre-purāṇic.

In the first book of the Rāmāyaṇa the chief purāṇic passages are: (1) the stories about the Kauśikas in chapters 32—34 and 51—65, (2) the descent of the Ganges in chapters 38—44, (3) the genealogy of the Kings of Viśalā in chapter 47, and (4) that of the Kings of Videha in chapter 71. The first of the two sections relating to the Kauśikas belongs to the older part of Book I, and gives a genealogy of Viśvāmitra different from, and much shorter than, that of the Vishṇupurāṇa (IV. 7), which again differs from the two Mahābhārata versions (XII. xlix, and XIII. iv) which are, in detail, at variance with each other. It is notable that in Rām. I. 32—4 Viśvāmitra is a Brahman, only four generations removed from Brahma, not, as in Rām. I. 51—65 and in the *purāṇas* and *Mahābhārata*, a king of the lunar race, and that, though Jahnu is referred to in the story of the descent of the Ganges

(Rām. I. 38—44), he is not there made an ancestor of Viśvāmitra. It would seem that the first Kauśika passage is pre-purāṇic, while the second, which Jacobi (Das Rāmāyaṇa, pp. 26-7) has shown to differ metrically from the context, is later and probably post-purāṇic. The legend of descent of the Ganges, as I have already noted, probably existed in an independent form before the *purāṇa* was compiled, and therefore its occurrence in R. I. 38—44 proves nothing.

The genealogy of the kings of Viśālā in Rām. I. 47 is identical with that in *Vishṇupurāṇa* IV, from Viśāla onwards (except that the last king but one is called Kakutstha instead of Janaméjaya), but makes him son of Ikshvāku instead of son of Tṛiṇabindu. Here we seem to have an intermediate stage in the fixing of these genealogies. The royal house of Viśālā knew itself to belong to the Ikshvāku race, and traced its descent in detail from its own local founder, but the relation between the latter and Ikshvāku had not yet been settled by incorporating the family tree into a general scheme showing all the branches of the race of Ikshvāku. This last step was taken subsequently by the compiler of the *purāṇa*.

The genealogy of Janaka given in Rām. I. 71, on the other hand, is thoroughly purāṇic, except in reckoning as a separate king Mithi (which in *Vishṇupurāṇa* IV. 5 is a name of the earlier Janaka) and in naming Devamīḍha in place of Kṛita. An earlier stage is represented by Rām. I. 66 and I. 75, where Devarāta, to whom Śiva gave his vow, is variously mentioned as a son of Nimi or as grandfather of Janaka, in a manner which shows that the family tree was not yet fixed.

Hence the greater part of the first book of the Rāmāyaṇa also is pre-purāṇic, though it contains some post-purāṇic passages. The seventh book, on the other hand, shows acquaintance with quite a number of purāṇic stories, and narrates several similar tales that are not to be found in the extant *purāṇas*. The first 34 chapters of this book form a separate section, dealing with the exploits of Rāvaṇa, which is metrically late, as Jacobi has shown (Das Rām., pp. 27-8). Of these exploits only two, *viz.*, the killing of Anaraṇya (Cf. *Vishṇupurāṇa* IV. 3) and the imprisonment of Rāvaṇa by Arjuna Karttavīryya, seem to occur elsewhere. The story of King Nṛiga in Rām. VII. 53-4 belongs to the period when Krishṇa was fully identified with Vishṇu, and is therefore post-purāṇic; but the king's name was, doubtless, taken from the list of the sons of Manu (*Vishṇupurāṇa* IV. i). The tales of Nimi (Rām. VII. 55), Yayāti (Id. 58-9), Saudāsa (Id. 65), and Ila (Id. 87—90) belong to the purāṇic stock (Cf. *Vishṇupurāṇa* IV. 5, 10, 4 and 1), and the eponymous founders of cities of Rām. VII. 70, 101, 102, and 108 are taken from the purānic lists (Cf. *Vishṇupurāṇa* IV. 4). The story of Kshupa, the first king, told in Rām. VII. 76, has a very primitive

appearance, and is referred to in the *Mahābhārata* (XII. 122, 166, and XIV. 4), though it does not appear to have been embodied in the regular purānic history. Moreover, there does not seem to be purānic authority for the defeat of Māndhātri by Lavaṇa or for the tales of Śveta and Daṇḍa (Ram. VII. 67, 78 and 79—81).

It will be seen, therefore, that the seventh book of the Rāmāyaṇa is the only one that shows any large number of references to purānic stories and that it may therefore, as a whole, be regarded as post-purānic. The view thus obtained of the relation between the *purāṇa* and the different parts of the Rāmāyaṇa is in general accord with Jacobi's conclusions regarding the age of that poem (Das Rām., p. 111).

5.—*The Kātkari Language.*

(*A Preliminary Study.*)

By Rev. Justin E. Abbott, D.D.

INTRODUCTION.

In connection with the work of the American Marathi Mission in the Kolābā District, Bombay Presidency, I became interested in the Kātkaris, a wild tribe living principally in the hilly regions of the Thānā and Kolābā Districts, numbering altogether 54,301.

According to the Census Report for 1901, the statistics of this tribe are as follows :—

District.		Kātkaris. Males.	Females.		Total.
Thānā District	...	11,186	11,116	=	22,302
Nasik ,,	...	353	349	=	702
Poona ,,	...	356	313	=	669
Kolābā ,,	...	14,232	15,550	=	29,782
Ratnagiri ,,	...	412	434	=	846
Total	...	26,539	27,762	=	54,301

The fact that petty thieving is a part of their method of gaining a livelihood, and that for this they are in the bad books of the police, has made them a suspicious people and timid to approach. It was not until the famine of 1899-1900, when our efforts to save them from starvation brought them into a friendly relation of confidence, that they became at all approachable. Schools were started in several of their hamlets, and our Christian teachers lived in their very midst. Through this close contact these teachers learned to understand and speak to some extent the Kātkari dialect, and this has provided me my opportunity to make a study of it, though, as it will be readily seen, under difficulties.

In place of personal contact with the Kātkaris, I have used our teachers as my medium through whom to study the Kātkari language. The knowledge of the Kātkari on the part of these teachers being imperfect, I cannot present the results of my study with the confidence of accuracy in all details ; but my method of study has made it possible to eliminate their errors to a large extent, and the grammar of the Kātkari language, which I now present, will be found to be substantially correct.

METHOD OF STUDY.

The method of study I adopted was as follows :—

1. I sent to the teachers in five different Kātkari schools, the northernmost being at Karjat in the northern part of the Kolābā District, and the southernmost in Ambāvli, in the Māhād Tālukā of the Kolābā District, about 200 short sentences, so chosen as to cover all the important grammatical points. The teachers were asked to get their most intelligent Kātkaris to help them in translating these sentences. The translations of these sentences I compared, and this gave me a rough tentative grammar.

2. I offered prizes to the teachers and the older Kātkari pupils for the best translations of certain Marathi prose passages.

3. The teachers were asked to take down sentences which they heard the Kātkari children utter among themselves.

4. The teachers were asked to get the Kātkaris to recite to them their poetry and folklore, and to take these down, as dictated, as accurately as they could. This poetry and folklore, for the first time committed to writing, has given the most satisfactory data for determining the grammar of the language.

The methods I have above described show the difficulties under which I have made this study of the Kātkari language, and they will be their own excuse for inaccuracies that may hereafter appear.

IMPORTANCE OF THE KĀTKARI LANGUAGE.

The history of the development of the Marathi and Gujarati is not so well known that the philologist can afford to ignore the data that may be supplied by the languages of the wild tribes in these western hills. I know, however, of no serious attempt having been made to study them. Yet, if they are to be studied, there is no time to be lost. The closer intercourse of these tribes with speakers of pure Marathi or Gujarati will inevitably lead to the disappearance of their dialects, and with them valuable data for a truer history of the Marathi and Gujarati.

I cannot speak for the dialects of other tribes, but it seems clear to me that the Kātkari is not a mere corrupt pronunciation of the Marathi, even though it does resemble the corrupt pronunciation of the lower classes among Marathi speakers.* Close contact with

* It will be seen from this paper that the paragraph on the language of the Kātkaris in the *Bombay Gazetteer* is incorrect.

Bomay Gazetteer on Thana, page 159 (*on Kolābā see page* 72).

"In speaking to one another Kātkaris use a patois which, on examination, proves to be a slightly disguised Marathi. They have no peculiar language, and show no signs of ever having had one. A tendency is noticeable to get rid of the personal, not the tense inflection in verbs. Thus *kothi gilas* became *kusi gal*. In every case the object is to shorten speech as much as possible. There are some peculiar words in common use, such as *suna*, a dog; *hiru*, a snake; *narak*, a bear; *akti*, fire; *vádis*, a wife."

Marathi speakers has had its inevitable effect, but the Kātkari has a distinctiveness that can be accounted for best on the supposition that it also is one of the *separate* streams of language coming down from the past, and thus is a sister—a very humble sister though she may be—to the Marathi and Gujarati, with both of whom she has affinities.

The Kātkaris know the ordinary Marathi of their neighbours, and use it in speaking with them ; but amongst themselves they always use the Kātkari.

This fact has perhaps been especially encouraged by the thieving propensities of these people. This has made it a special advantage to them to be able to communicate among themselves without being understood by those outside.

By side of the Marathi this dialect therefore exists, spoken by over 54,000, holding within it philological treasures, which should not be lost. My trust is that this first attempt at a serious study of the Kātkari will be followed by others, and the fast disappearing data for philological studies be preserved.

Extent of its Use.

While prepared to find dialectic differences in the speech of the Kātkaris in the Thānā District bordering on the Gujarati, and that of the Kātkari in their southern limit, I have thus far found no internal dialectic differences of which I feel certain. With their bond of race and customs, they have also one language used amongst themselves, and not easily intelligible to those outside in its spoken form.

The Affinity of the Kātkari with the Marathi and Gujarati.

1. *Affinity from the point of Vocabulary.*

a The relationship is nearer the Marathi than Gujarati.

b There are, however, Kātkari words common to the Gujarati, and not found in Marathi, as डोशी old woman, G. ડોશી ; कुकडा cock G. કુકડો; देडूक frog. G. દેડકો, Marathi बेडूक.

c The Kātkari contains some words derived from Sanskrit, and in common use, which neither the Marathi nor Gujarati use, as शी, cold, from Sanskrit शीत ; सुना dog from Sanskrit श्वान.

d Words in common use in Kātkari, but obsolete in current Marathi, as येरे others; केल्या, monkey. Old Marathi केलडें.

e The Kātkari preserves the lost nominatives of the Marathi demonstrative pronoun यो, यी, यें for which the Marathi now uses हा, ही, हें, the य appearing in the oblique cases, for example

Marathi.			Kātkari.		
हा	ही	हें	यो	यी	यां
हा	ही	हें	यो	यी	यां
यानें	यिनें	यानें	यानें	यिनें	यानें
याला	यिला	याला	याला	यिला	याला
&c.,	&c.,	&c.	&c.,	&c.,	&c.

f There are words of Sanskrit derivation, but used in a modified sense from the original, as इंधि a spear, and इंधना = to hunt with a spear. M. विंधणें from S. विध्, to pierce.

g There are words not found in the Marathi or Gujarati dictionarles. उंग = जवळ; ओहडी = बायको; ओहडास = नवरा; किरला = खेकडा; डवरा = म्हातारा; डवरी = म्हातारी; दड = जवळ.

2. *Affinity from the point of Declensions.*

The declension of nouns and pronouns follows essentially the Marathi. In the case ending for the Genitive ना, नी, नां is used for the Marathi चा, ची, चें and so follows the Gujarati नो नी नुं. The ordinary Locative is in मां like the Gujarati.

The nominative and accusative plural of all nouns seem to end in आ. Thus following the Gujarati plurals in आ, Feminines in इ have plural in या, which is इ + आ. For example, बिल = M. बैल pl. बिला; बाहस = father pl. बाहसा; अंगठी = ring pl. अंगठ्या.

3. *Affinity from the point of Conjugations.*

The conjugation of the verb follows the Marathi, but with striking exceptions.

The endings for the present and past tenses, Indicative Mood, are quite different from the Marathi.

Present Tense.	Past Tense.
मा पडाहा I fall	मा पडना I fell
तू पडहस	तू पडनास
तो पडह	तो पडना
अमि पडहु or पडहाव	अमि पडनाव
तुमी पडहा	तूमी पडनास
ते पडहत	ते पडनात

The Imperative has a form differing from the Marathi, तू कर and for the Negative S. तू करसील नको; P. तुमी करसाल नको.

The Pluperfect Participle is in हीन as पडहीन, करहीन = पडून, करून

The Supine ends in उला as करूला, पडुला for करायाला, पाडायाला.

KĀTKARI GRAMMAR.

The following, very incomplete in form, must be considered tentative grammar only. I have already referred to the difficulties securing accuracy in the minor details.

NOUNS.

GENDER OF NOUNS.

1. There are three genders—Masculine, Feminine and Neuter.

2. Nouns in अ may be Masculine, Feminine or Neuter, as बा m. father; घर n. house; आईस f. mother.

3. Nouns in आ Masculine and Feminine as घोडा, m. horse; मा f. affection.

4. Nouns in ई, Masculine and Feminine.

The rules for gender follow essentially those of the Marathi.

DECLENSION OF NOUNS.

Masculines in अ.

बिल = बैल, Ox.

	S.	Pl.
1.	बिल	बिला
2.	बिल	बिलां
3.	बिलानें	बिलांनीं, ही
4.	बिलाला	बिलांना, ला
5.	बिलाहून	बिलांहून
6.	बिलाना, नी, नां	बिलांना, नी, नां
7.	बिलामा	बिलांमा

बाहस=बाप, Father.

Masculines in अ.

	S.	Pl.
1.	बाहस	बाहसा
2.	बाहस	बाहसां
3.	बाहसनें	बाहसांनीं, ही
4.	बाहसला	बाहसांना, ला
5.	बाहसून	बाहसांहून
6.	बाहसना, नी, नां	बाहसांना, नी, नां
7.	बाहसमां	बाहसांमा

Feminines in अ.

	S.	Pl.
1.	आईस, Mother	आइसा
2.	आईस	आइसा
3.	आइसनें	आइसांनीं, ही
	&c.	&c.

Neuters in अ.

	S.	Pl.
1.	घर, House	घरां
2.	घर	घरां
3.	घरानें	घरांनीं, ही
4.	घराला	घरांना, ला
5.	घराहून	घरांहून
6.	घराना, नी, नां	घरांना, नी, नां
7.	घरामा	घरांमा

Masculines in आ.

	S.	Pl.
1.	सोहरा, Boy	सोहरा
2.	सोहरा	सोहरा
3.	सोहरानें	सोहरांनीं, ही
4.	सोहराला	सोहरांना, ला
5.	सोहराहून	सोहरांहून
6.	सोहराना, नी, नां	सोहरांना, नी, नां
7.	सोहरामा	सोहरांमा

Feminines in आ.

	S.
1.	मया, Affection
2.	मया
3.	मयानें
4.	मयाला
5.	मयाहून
6.	मयाना, नी, नां
7.	मयामां

Masculines in ई.

	S.
1.	धोबी, Dhobie
2.	धोबी
3.	धोबीनें
4.	धोबीस, ला

&c., &c.

Feminines in ई.

	S.	Pl.
1.	आंगठी, Ring	आंगठ्या
2.	आंगठी	आंगठ्या
3.	आंगठीनें	आंगठ्यांही
4.	आंगठीला	आंगठ्यांला, ना
5.	आंगठीहून	आंगठ्यांहून
6.	आंगठीना, नी, नां	आंगठ्यांना, नी, नां
7.	आंगठीमा	आंगठ्यामा

Neuters in ई.

	S.
1.	पानी, Water
2.	पानी
3.	पान्यानें
4.	पान्याला
5.	पान्याहून
6.	पान्याना, नी, नां
7.	पान्यामा

Masculine in रू.

	S.
1.	हिरू, Serpent
2.	हिरू
3.	हिरूनें
4.	हिरूस
5.	हिरूहून
6.	हिरूना, नी, नां
7.	हिरूमा

Neuter in रू.

	S.
1.	गोजरू
2.	गोजरू
3.	गोजरानें
4.	गोजरास
5.	गोजराहून
6.	गोजराना, नी, नां
7.	गोजरामा

PRONOUNS.

Declension of—

1. First Personal Pronoun.

	S.	Pl.
1.	मा, I	आमी
2.	मा	आमी
3.	मयि	आमी
4.	माला	आमाला
5.	माहून	आमाहून
6.	माना, नी, नां	आमाना, नी, नां
7.	मामा	आमामां

2. Second Personal Pronoun.

	S.	Pl.
1.	तू, Thou	तुमी
2.	तू	तुमी
3.	तुयि	तुमी
4.	तुला	तुमाला
5.	तूहून	तुमाहून
6.	तुना, नी, नां	तुमाना, नी, नां
7.	तुमा	तुमामा.

3. Third Personal Pronoun, Masculine.

	S.	Pl.
1.	तो, He	ते
2.	तो	ते
3.	त्यानें	त्यांहीं
4.	त्याला	त्यांना
5.	त्याहून	त्यांहून
6.	त्याना, नी, नां	त्यांना नी, नां
7.	त्यामां	त्यांमां

4. Third Personal Pronoun, Feminine.

	S.	Pl.
1.	ती, She	त्या
2.	ती	त्या
3.	तिनें	त्यांही
4.	तिला	त्यांला
5.	तिहून	त्यांहून
6.	तिना, नी, नां	त्यांना, नी, नां
7.	तिमा	त्यामा

5. Third Personal Pronoun, Neuter.

	S.	Pl.
1.	तां, It	त्यां
2.	तां	त्यां
3.	त्यानें	त्यांहीं
4.	त्याला	त्यांला, ना
5.	त्याहून	त्यांहून
6.	त्याना, नी, नां	त्यांना, नी, नां
7.	त्यामां	त्यांमां

6. Demonstrative Pronoun, Masculine.

	S.	Pl.
1.	यो = Marathi हा	ये
2.	यो	ये
3.	यानें	यांही, नी
4.	याला	यांना, ला
5.	याहून	यांहून
6.	याना, नी, ना	याना, नी, ना
7.	यामा	यांमा

7. Demonstrative Pronoun, Feminine.

	S.	Pl.
1.	यी and ई = Marathi ही.	या
2.	यी ,, ई	या
3.	यिनें ,, इनें	यानी, ही
4.	यिला ,, इला	यांला, ना
5.	यिहून ,, इहून	यांहून
6.	यिना ,, इना, नी, नां	यांना, नी, ना
7.	यिमा ,, इमा	यांमा

8. Demonstrative Pronoun, Neuter.

S.	Pl.
यां = हें	यां

Declined—same as Masculine.

9. Relative Pronoun.

S.			Pl.		
जो	जी	जां	जे	ज्या	जां
M.	F.	N.	M.	F.	N.

Declined—same as तो, ती, तां

10. Possessive Pronouns.

Singular माना, मानी, मानां	माना, मान्या, मानां
Crude form. मान्या or माने	
Plural. आमना, आमनी, आमनां	आमना, आमन्या, आमना
Crude form. आमन्या or आमने	
Singular. तुना, तुनी, तुनां	तुना, तुन्या, तुनां
Crude form. तुन्या or तुने	
Plural. तुमना, तुमनी, तुमनां	तुमना, तुमन्या, तुमनां
Crude form. तुमन्या or तुमने	
Singular. त्याना, त्यानी, त्यानां	त्याना, त्यान्या, त्यानां
Crude form. त्यान्या or त्याने	
Singular. त्याहना, त्याहनी, त्याहनां	त्याहना, त्याहन्या, त्याहनां
Crude form. त्याहन्या or त्याहने	
Singular. तिना, तिनी, तिना	तिना, तिन्या, तिना
Crude form. तिन्या or तिने	
Singular. ज्याना, ज्यानी, ज्याना	ज्याना, ज्यान्या, ज्याना
Crude form. ज्यान्या or ज्याने	
Singular. जिना, जिनी, जिना	ज्याना, ज्यान्या, ज्याना
Crude form. जिन्या or जिने	

11. Interrogative Pronouns.

1.	कोन	or किन	or कवन	who
2.	कोन	,, किन	,, कवन	
3.	कोनी	,, किनी	,, कवनी	
4.	कोनाला	,, किनाला	,, कवनाला	
5.	कोनाहून	,, किनाहून	,, कवनाहून	
6.	कोनाना	,, किनाना	,, कवनाना, नी, नां	
7.	कोनामा	,, किनामा	,, कवनामा	

1. काय what
2. काय
3. कसाने or किसाने

&c., &c.

POSTPOSITIONS.

Like the Marathi, the Postpositions are added to the crude form the noun.

List of Postpositions.

Kātkari.	Marathi.	English.
मा	आंत	In
माजार	मध्यें	Between
वठा	आंत	In
तहा	मुळें	On account of
हाठ	मुळें	On account of
वर	वर	On
तेस्व	पलिकडे	Beyond
तेसवठा	मागून	Behind
मागून	मागून	From behind
पासून	पासून	From
वगर	वांचून	Without
गत	सारखा	Like
सारा	सारखा	Like
साठीं	साठीं	For
हाठीं	साठीं	For
मां	आंत	In
दड	कडे	Towards
वठी	ऊन	From
वरठा	वरून	From above
वरवठा	वरून	From above
खाल	खाली	Under
खून	खाली	Under
इखी	विषयी	Regarding
येखी	विषयी	Regarding
ईसई	विषयी	Regarding
बाहेर	बाहेर	Outside
हून	हून	From
करता	करिता	For
भोवती	भोवती	Around

Kātkari.	Marathi.	English.
कडून	कडून	From
कडे	कडे	Towards
खालवठा	खालून	From below
मुहरं	समोर	Before
मुहरं	पुर्वी	Before
परीस	पेक्षा	Than
पाठी	बरोबर	With
माठा	मध्यें	Among
पा	शीं	To
सी	शीं	To

ADJECTIVES.

Adjectives follow the rules of the Marathi.

ADVERBS.

Of Place.

Kātkari.	Marathi.	English.
अठं	एथें	Here
एवठं	एथें	Here
तठं	तेथें	There
जठं	जेथें	Where (relative)
कठं	कोठें	Where ?
कुन्सह	कोठें	Where ?
कुन्स	कोठें	Where
इकडं	इकडें	Hither
तिकडं	तिकडें	Thither
जिकडं	जिकडें	Whither
एवठा	इकडें	Hither
तेवठा	तिकडें	Thither
जेवठा	जिकडें	Whither
अठून	एथून	From here

Kātkari.	Marathi.	English.
तठून	तेथून	From there
जठून	जेथून	From where (relative)
कठून	कोठून	From where?
एवठून	इकडून	From here
तेवठून	तिकडून	From there
जेवठून	जिकडून	From where

Of Time.

तदवा	तेव्हां	Then
जदवां	जेव्हां	When (rel.)
कदवां	केव्हां	When

Kātkari.			Marathi.	English.
M.	F.	N.		
इसा	इसी	इसां	असा, &c.	So
तिसा	तिसी	तिसां	तसा, &c.	So
जिसा	जिसी	जिसां	जसा, &c.	As
किसा	किसी	किसां	कसा, &c.	How

VERBS.

FIRST CONJUGATION.

Present Tense. M. मी पडतों, &c. I fall.

Singular.

मा पडाहा	मा पडाहा	मा पडाहा
तू पडहस	तू पडहस	तू पडहस
तो पडह	ती पडह	तां पडह

Plural.

आमी पडहूं or पडहाव

तुमी पडहा

ते पडहत, त्या पडहत्यात त्यां पडहतात

Past Tense.

Singular.

M.	F.	N.	
मा पडना	मा पडनी	मा पडना	I fell.
तू पडनास	तू पडनीस	तू पडनास	
तो पडना	ती पडनी	तां पडना	

Plural.

आमी पडनाव	आमी पडनाव	आमी पडनाव
तुमी पडनास	तुमी पडन्यास	तुमी पडनास
ते पडनात	त्या पडन्यात	त्यां पडनात

Future.

Singular.

मा पडीन M. मी पडेन I will fall.

तू पडसील

तो ती, तां पडील

आमी पडून

तुमी पडसाल

ते, त्या, त्यां पडतील

Past Habitual.

Singular.

मा पडां M. मी पडत I used to fall.

तू पडं

तो, ती, तां पडं

आमी पडूं

तुमी पडां

ते, त्या, त्यां पडत

Subjunctive. M. म्या पडावें, &c. I should fall.

Singular.

मयि पडवां

तुयि पडवां

त्यानें पडवां

आमी पडवां

तुमी पडवां

त्याही पडवां

IMPERATIVE.

Positive.

S. तू पड or तू पडजोस M. तू पड

P. तुमी पडा or पडजास

Negative.

S. तू पडसील नको or पडसी नको M. तू पडूं नको

P. तुमी पडसाल नका तुम्ही पडूं नका

Infinitive पडी M. पडूं

PARTICIPLES.

Present, पडत	M.	पडत	Falling
Past, पडना	,,	पडला	Fell
Pluperfect, पडहीन, पडी	,,	पडून	Having fallen
Future, पडणार, पडसाल	,,	पडणार	About to fall
Gerund. पडनां, falling.	,,	पडणें	To fall
Dative, पडुला,	,,	पडायाला	For falling

SECOND CONJUGATION.

Present Tense. (Kartari Prayoga.)

मा मोडहा मा मोडहा मा मोडहा मी मोडितो, M. I br

तू मोडहस तू मोडहस तू मोडहस

तो मोडह ती मोडह तां मोडह

आमी मोडहाव

तुमी मोडहां

ते मोडहत त्या मोडहत्यात त्या मोडहतात

Past Tense. (Karmani Prayoga.)

मयि	S.	मोडना	मोडनी,	मोडनां	I broke
	P.	मोडना	माडन्या	माडना	
तयि		,,	,,	,,	
त्यानें		,,	,,	,,	
आमी		,,	,,	,,	
तुमी		,,	,,	,,	
त्यांही		,,	,,	,,	

(Bhave Prayoga.)

मयि	मोडां	M. मी मोडलें,	I broke
तुयि	मोडां		
त्यानें, तिनें, त्यानें	मोडां		
आमी	मोडां		
तुमी	मोडां		
त्यांही	मोडां		

Subjunctive. (Karmani Prayoga.)

मयि, तुयि, त्यानें, तिनें, आमीं, तुमीं, त्यांहीं	S. मोडवा	मोडवी	मोडवां	M. मी मोडावा,	I should break
	P. मोडवा	मोडव्या	मोडवा		

Subjunctive. (Bhave Prayoga.)

मयि	मोडवां	M. मी मोडावा,	I should break
तुयि	,,		
त्यानें, तिने, त्यानें	,,		
आमी	,,		
तुमी	,,		
त्यांही	,,		

Infinitive. मोडी M. मोडूं To break

PARTICIPLES.

Present,	मोडत		M.	मोडत	Breaking
Past,	मोडना	मोडनेल	,,	मोडला	Broken
Pluperfect,	मोडहीन		,,	मोडून	Having broken
Future,	मोडनार	मोडसाल	,,	मोडणार	About to break
Gerund.	मोडनां		,,	मोडणें	To break
Supines.	Dative, मोडुला		,,	मोडायाला	For breaking

AUXILIARY VERBS.

K. असनां =असणें to be.

Present Tense.

मा आहां	M. मी आहे &c.	I am
तु आहास		
तो, ती, तां आहा		
आमी आहाव		
तुमी आहात		
ते, त्या, त्यां आहात		

Past Tense.

Singular.	Plural.		
मा हता	आमी हताव	M· मी होतों,	I was
तू हतास	तुमी हतास		
तो हता ती हती तां हतां	ते हतात त्या हत्यात ता हतात		

होनां = होणें.

Present.

Masculine.	Feminine.	Neuter.		
मा हेता	मा हेती	मा हेतां	M. मी होतों &c.	I becam
तू हेतास	तू हेतीस	तू हेतास		
तो हेता	ती हेती	तां हेतां		
आमी हेताव	आमी हेत्याव	आमी हेताव		
तुमी हेतास	तुमी हेत्यास	तुमी हेतास		
ते हेतात	त्या हेत्यात	त्यां हेतात		

Past.

Masculine.	Feminine.	Neuter.		
मा हिना	मा हिनी	मा हिना	M. मी झालों	I became
तू हिनास	तु हिनीस	तू हिनास		
तो हिना	ती हिनी	तां हिना		
आमी हिनाव				
तुमी हिनास				
ते हिनात	त्या हिन्यात	त्यां हिनात		

Future.

मा हीन M. मी होईन, I will become
तू हेशील
तो, ति, तां हील
आमी झाऊन
तुमी हेसाल
ते, त्या, तां हेतील

Future.

मा हेनार M. मी होणार I am about to become
तू हेनार
&c.

PARTICIPLES.

Present,	हे, हेत	M.	होत	Becoming
Past,	हिना, हिनेल	,,	झाला	Became
Pluperfect,	हीन	,,	होऊन	Having become
Future,	हेनार	,,	होणार	About to become

Negative Form.

Present.

S. मा हेत नही P. आमी हेत नही, M. मी होत नाही, I do not become
,, तु हेत नही ,, तुमी हेत नही
,, तो, ती, ता हेत नही ,, ते, त्या, ता हेत नही

Past.

S. मा हिना नही P. आमा हिना नही, M मी होणार नाहीं, I will not become
,, तू हिनास नही ,, तुमी हिना नही
,, तो, ती, तां हिना नही ,, ते, हिनात नही
त्यां हिन्यात नही
तां हिनात नही

KATKARI FOLKLORE AND POETRY.

For these specimens of Kātkari Folklore and Poetry I am indebted to Mr. M. B. Adhav, teacher of the Kātkari schools, of the United Free Church Mission at Karjat.

It will be noticed that the poetry is much nearer the pure Marathi than their prose.

THE FOOLISH KĀTKARIS.

Translation of a Part of Story No. 1.

There were once certain four very lazy men. They determined that since their old man was rough with them, they would go for service to some city. They said to one another, "This is a good idea, let us start to-morrow morning." As soon as the day dawned, they started from home. Time passed as they walked along, and finally they said to one another, "Let us camp here for the night. We will sleep here, and when day dawns, then we will go forward." (The next day) having gone a good distance they suddenly stood still and began to question one another, "Have we not forgotten and left one of our number where we encamped for the night?" Another said, "Perhaps so, let us stand still and count." Then one of them began to count. He counted and could make out but three; said he, "Truly, we have come here leaving one behind." Another said, "He is counting wrong. He did not count himself, therefore the number comes out but three." The first said, "If I counted wrong, then you count and see." So he began to count, but in the same way he forgot to include himself and said there were but three. All counted in the same way. "We cannot make out four; there are only three. We have left one behind forgotten where we slept." (Saying this) they ran back to where they had left (their comrade). They saw the place, but did not find the fourth. Then they said, "Let us go to the river to look for him, perhaps he is washed away in the flood." They went to search for the fourth there. They dove into the deep water to find him, and were chilled through by the cold. Finally, they said, "We are not going to dive any more, we are very cold, we cannot find the fourth. We are really only three."

A farmer who was ploughing saw all this funny incident, and said to the four men, "Tell me your perplexity."

Kātkaris.—We left our home four in number, and we have lost one at the place where we spent the night.

Farmer.—If I bring you your comrade, what present will you give me?

Kātkaris.—We have nothing with us to give you, but if you will restore to us our fourth, we will serve you free all our lives.

Farmer.—I will restore you the fourth man here at once. Only stand in a row.

The Kātkaris stood in a row as requested. The farmer took his long whip in his hand and, laying the whip on one of them, counted, "One," at the next stroke "Two," and so on to "Four." In great pain they also themselves counted "Four."

Farmer.—Now you four are all here, are you not?

Kātkaris.—Yes.

Farmer.—Come now then to my house.

Story No. 1.

कोनी एक चार जन बुडुं आळशी हतात. त्यानी एक दिस बेत करा कीं, आपला डवरा आपल्याला भारी झगडंहत; तर आपुन एकादे शहराला चाकरी रहुला जाऊं. मग ते एकमेकांनां आंखनात, बेस आहा, उद्यां सकाळींज जाऊं. मंग दुसरा दिस लागना तहां सकाळनी ते घरांतून निंगनात. चालतां चालतां त्यानां येळ हिनी. मंग ते एकमेकांला आंखुला लागनात, आपुन अठंज वस्तीला रहूं या. अठंज निजूं अन् सकाळनं उजडना मंग मुहरं जाऊं. तठून बराच दूर ते चालीहिन ग्यात, मंग एकदासूज उभा रहनात. अन् एकमेकांला सोदुला लागनात कीं, आपुन वस्तीला राहिलों तठं आपला एकादा गडी इसरायजी नाहीं ना रहनेल? दुसरा आंखुला लागनात नेमुं नाहीं. तर उभा रहिहीन मेजा हेरूं. मंग एकजन मोजुला लागना. मोजं तर तीनच आंखुला लागना. एक आपुन तठं खरांजरे खरांज इसरायजी आनाव. दुसरा आंखुला लागना, यो कांहीं वाईटुज मेजह; आपलासला धरं नाहीं तहां ते तीनुज हेहेत. पहिला आंखं मा वाईटुज मेजाहा तर तूं मेज. मंग तो मेजुला लागना. तोही त्यानेंजगत पन आपलासला धरं नाहीं, तहां तोही तीनज आंखी उठं; इसां समद्यांनीं क्या, पन तीनुज हेत, चार कांहीं हेत नाहीं. तर आपुन निजलं तठंज इसरायजी आनाव, तहां ते मांगल्या मांगाज इसरायजी तठं धावंदी ग्यात. तो जागा त्यांहीं हेरा पन तठं चारवा सांपडं नाहीं. मंग आंखुला लागनात नईवर हेरूला चला. पुरी काय लिदा, पुरी लिदा हवां तर गवसूं. मंग ते नईला गवसुला ग्यात. तठं दाहाडामा बुडी बुडी गवसत. मंग ते गवसी गवसी हिवळणात. मंग ते एकमेकांला आंखुला लगनात, आतां नाहीं बुडायजं. आतां बुडुं शीं लागनी. मंग आतां चला त चला चारवा कांहीं मिळं नाहीं. आपुन तीन तर तीनुज आहुं.

तहां यांनी भानगड एक कुनबी शेतामा नांगोर धरी हता. त्यांनी ही समदी मजा हेरी. तो कुनबी या चारू जनांला आंखना, "तुमची भानगड मला कळूं या."

कात०—दादा आह्मी चौधेजण घरींहून निघालों होतों तेव्हां आह्मी एके ठिकाणीं वस्तीला राहिलों वगैरे सगळी भानगड सांगितली. तेव्हां—

कुण०—तुमचा गडी मीं आणून दिला तर तुह्मी मला काय बक्षीस कराल ?

कात०—आमच्या जवळ तर तुह्माला देण्यास कांहीं नाहीं, परंतु आमचा चौथा गडी आणून दिल्यावर आह्मी तुमची जन्मभर फुकट चाकरी करूं.

कुण०—एथच्या एथें आतांच मी तुमचा चौथा गडी देतों. मात्र तुह्मी हारोहारीनें उभे रहा.

तिसां ते काथोड्या उभा रहनात. मंग ते कुणब्यानें आपला आसोट हातामा लिदा अन् पहिल्याला एक सपाटा मारीहिन 'एक' आंखना. इसां चारी जनला चार फटके दिनात. तदवां त्यांना बुहुं कळ लागनी व त्यांनीं ते चार फटके सोता मोजात.

कुण०—आतां तरी तुमचे चान्ही गडी मिळाले काय ?

कात०—मिळाले.

कुण०—तर मग आतां माझ्या घरीं चला. घरीं जाऊन तो आपल्या आईस ह्मणाला, मी पैशावांचून हे गडी फुकट आणिले आहेत.

आई—बरें आहे बा.

ते गडी आईला दाखविल्यावर त्यांनां त्यानें शेतावर नेले व तेथें उंसाचा थळ दाखवून ह्मणाला, गड्यांनो, तुह्मांला हें काम करायाचें आहे. यांतील गवत तुह्मी काढुं लागा— तेव्हां एक—

कात०—गवत कसें काढायाचें ते आह्मांस काढून दाखीव.

कुणबी (दाखवितो, व) उंसाच्या एका माड्या जवळ खालीं बसून, त्या भोंवतालचें गवत उपटूं लागला. आतां पाहिलें कां? असा माडा सांभाळून बाजुचें सर्व गवत बिवत काढून टाकायाचें. असें बोलून तो कुणबी गड्यांस तेथेंच ठेवून नांगर हाकलायास गेला—

तदां चारी जनांतून एक काथोड्या उभा रहहीन आंखुला लगना, आपला धनाईस काय आंखी ग्या? तो इसां आंखना, फकत यींज माडाला बेस जतन लावा. येर समदा बेनीहिन शेडंला गवत उपटी टाका. ऊंसाना समदा कोंब देखील उपटी टाका अन् शेडंला ढीग करां. पन एकुज माडाला जतन करा. मंग बुहुं उशीरानं नांगरावरठां तो कुनबी तठं आना. मग इसा आखना कीं, तुह्मीं हें काय केलें?

कात०—तुह्मीं सांगितलेलें काम आह्मीं बरोबर केलें.

कुण०—तुह्मीं हें अगदीं नुकसान करून टाकलें. मीं दाखविलेला एकच ऊंस काय ठेवून बाकीचे सर्व फेंकून दिले!

इसा रितीनें काथोड्यांस तो कुणबी बराच रागे जीहिन आंखना, या ऊसांचें भारे बांधून घरीं घेऊन जा.

कात०—ही ओझीं घरीं नेऊन कोठें टाकावींत?

कुण०—माझी ह्यातारी आई घरीं आहे ती जी जागा तुह्यांस दाखवील तेथें टाका.

पन तठं आदीच सासुसना अन् ओहोसना झगडा हिनेल हता. तदवां डोसीला बुहुं राग आनाहा. मंग तीं काथुड्या डोसीला आंखुला लागनात कीं, ह्यातारे बये, हीं ओझीं कोठें टाकूं? इसां डोसीला सोदिहीन बुहुंज राग आना. सोईनं कांहीं बोलच नाहीं. मंग बुहुं उशीरानं डोशी आंखनी, मेल्याहो माझ्या अंगावर तीं ओझीं टाका.

मंग ते एकमेकाला सोदुला लागनात डोशी काय आंखनी ते तुमी समजनास काय? ते आखने, डोशी इसां आंखनी माने अंगावरज ओझीं उचलीं अपळां. ह्यानून चारी जनांनीं बेत करीहिन डोशीनें अंगावर मोठ्यां वझीं उचलीं आपळांत. तहां लगेच डोशी तठच मरनी. मंग बराच घडीभर घडीभरतांव तिना लेकुस नांगरावरठा धावंदी आना, व गड्याला सोदुला लागना, तुह्मी ऊंसांचीं ओझीं कोठें टाकलीं?

कात०—ह्यातारीच्या सांगण्याप्रमाणें सर्व ओझीं आह्मीं तिच्या अंगावर टाकलीं.

कुण० (ह्यातारी मेलेली पाहून)—कुडाचा एक तडका काढून व तिला त्याच्यावर घालून ह्यसनवट्यावर घेऊन या. मी पुढें जातों. तुह्मी तोपर्यंत हिला **निचीतिनें** घेऊन या.

ते एकमेकाला म्हणाले, आपला धनाईस काय आंखी ग्या ते तुमी समजनास काय? ते आंखने ये मुर्दा तुमी **नाचवत** लिहीन या. मंग त्यांनीं तो मुर्दा उचला, अन् डोईवर लिहीन नाचवत चालनात. नाचतां नाचतां तो मुर्दा डोईवरठां खाल पडना. तहां ते आंखनात, आपुन नाचुनें छंदामा हतांव तदवां डोसी कुन्संव पडनी? म्हणून मांगा फेरि हेरहत तर दुसरी एक कोनी डोशी शेनप्ड्या जमा कर हती. त्यांतला एक काथोड्या आंखुला लागना कीं, आपलेज डोईवरठी ही डोशी कदवांच उडी पडीहिन शेनप्ड्या गोळा करूला लागनी. धावंदा तिना बगड मोडा अन् दुसरून तडकावर घालीहिन नाचवत नाचवत मनष्टीवर लिहिन जाऊं. इसां त्यांना बेत हिना मंग ते धावंदी ग्यात. दुसरा आंखना डोशीला धरा. डोशी आंखनी, तुमची म्हतारी दुसरी असेल मी नाहीं.

कात०—नाहीं, तूंच ती ह्यातारी. तुला जाळण्याकरितां तूंच गवऱ्या कशाला जमवितेस? आह्मी आणितों.

कुणबी मनामा आंखुला लागना ते काथोड्या मुर्दा लीहिन आजून करहत तरी काय? वडा उशीर हिना! ह्यणून तो धावंदीहिन अर्दे वाटेला आना. अन् टेपांवरठां उभा रहहिन हेरं तर यांहीं एका डोसीना भोंवत्या बुहुं गर्दी उडवीही. ह्यणून तो कुनबी तठं गर्दीना शेडं धावंदी ग्या. यीं समदा हेरीहिन तो कुनबी त्यांना आंखना, असें काय करतारे?

कात०—तुमच्या सांगण्याप्रमाणें आह्मी ह्मातारीला नाचवत आणीत असतां, तिनें तडक्यावरून उडी टाकून, गवऱ्या जमवूं लागली. तिनें कशाला उडी टाकावी ? आह्मी नाहीं कां गवऱ्या जमविणार ?

कुण०—ही ह्मातारी आपली नाहीं, दुसरी आहे. तुह्मी कोणत्या वाटेनें मुर्दा घेऊन आलां तें मला दाखवा. तदवां ते गवसुला लागनात तहां तो मुर्दा बांधानें शेडंला गवसना. मंग मुर्दा उचलीहिन तडकावर थेना. अन् मंग मनष्टीवर ली ग्यात. अन् तठं मंग तिला थोपकी दिनी.

कुण०—तुह्मी माझ्या घरीं फुकट राहिलां तरी तुह्मीं मला नकोत. तुह्मी आपला रस्ता धरा.

कात० (आपापसांत)—इसी तुनी खोड मोडुला हवी. आतां किसांक आह्मांला घाबरजी दवडंहस ? चला दादानो, आपल्या घर जाऊं. मंग ते घर ग्यात.

तात्पर्य—फुकट ब्याद घेऊं नये.

STORY No. 2.

THE FOX AND THE COCK.

एक कोल्हा अन् एक कुकडा हता. कुकडानी हती बोर, आणि कोल्हानी हती तोर्ण. कुकडानी पिकनी बोर तहां कोल्हा ग्या कुकडापा अन् आंखुला लागना, कुकडा दादा, माला एक बोर दे. त्यानं एक बोर टाका, तर तीं शेनामांज पडना. तर तो आंखुला लागना, बोर शेनाखाल माखना. तहां कुकडा आंखना धवीं ख. कोल्हा हता तो ग्या ओहोळावर, अन् मजार जाहीन दगडंवर बिसना. वरवठां आना पूर, कोल्हाला पुरी लिदा खाल. तो आंखुला कीं, अरे दादाहो "जग बुडनारे, जग बुडना." इसां करूंला लागना. कोळी धावंदीहिन हेरूला ग्यात त तठं तो कोल्हा पुरी लिजं. ते आंखुला लागनात, भुसळायंजु द्या तठंज. एक कोळी माणुस हता त्याला दया आनी, ह्मणून त्यानी त्याला बाहेर काडां.

तात्पर्य.—बुडत्यास हात द्यावा, घाबरल्यास धीर, ताल गीताला.

STORY No. 3.

THE HUNTER AND HIS WIFE.

एक काथोड्या अन् एक काथोडीन हतात. तर तो काथोड्या हिंडुला जा, अन् सावदां मारीहिन आनं. तो कापीहिन सांकठीहिन बायलसला आपं. ती शिजवीहिन समदांज ह्मारीं खा. अन् कांजी थेवं. ओहोडास रानांतून ये तहां तो सोदं, यांतला खडा काय हिनात ? ती आंख, इरायजी ग्यात. त तो उगाच खा, अन् रहं. तहां एक डोशी हती ती आंखनी तूं भारीं बारं सावदां मारीं आनहसं. तो आखं डोशे, निस्ता त्यानी

पाणीही जा. अन् खडा एक नाहीं मिळं. तूं मागहस तर, मा तुला कुसंना थांव? ती आंखुला लागनी, बा, तूं सोनाराकडं ज अन् तीन बाहुल्या करी लीहिन ये. तो ग्या अन् तीन बाहुल्या करीहिन आना. ती डोशी आंखनी, एक बाहुली चुलावर थेव, एक बवरामा थेव अन् एक बारावर थेंव.

मंग ती दुसुन मांस रांधुला लागनी अन् पहिले गत तवलीमा चाटु घालीहिन झारी खाऊला लागनी. तर चुलावरनी बाहुली आंखुला लागनी, "इसी कायवं करहस?" अन् मदिली बाहुली आंखुला लागंनी, "तिसांज व तिनी खोड" अन् बारावरनी आंखुला लागनी, "आनावं आना तो हेर." तिसांज तिनं चाटु टाकी दिना. अन् धावंदीहिन बाहेर हेरूला गई. मंग झगडुला लागनी, कोनान्यावं कारट्या अठं आनलां? तठं हेरनी तर तठं कोन नाहीं अन् मांगाज घरामा गई. मंग दुसुन तिसांज करूला लागनी, वड्यांत तिना वहडास तिकडसा आना. तदवां ती आंखुला लागनी, कासाला लाहाज आनास? अजून इरायनेल नाहीं. तो आंखुला लागना, दे माला हाडकां बिडकां. तठून त्याला खडा मिळूला लागनात.

STORY NO. 4.

A STORY OF KANHOJI ĀNGRE.

कान्होजी आंग्रे.

कान्हु नांवाना कुनब्याना एक गरीब सोहरा हता; तदवां तो भुकेनें बुडुं यपना, तहां त्याला इसां वाटना कीं, कोनाने तरी घर चाकरी करीहिन पोट भरवां. मंग तो हता तठून निंगीहिन पनवेल तालुक्यामा चिखल्या गांव आहा तें गांवामा तो ग्या. तहां त्याला एक बामण इसां आंख कीं, माने घर तूं चाकरी करहस? तो आंखना है राहा. तदवां त्या बामणानी त्याला झाशी, टोनगा चारूला आंखा. तो झाशी चारतां चारतां तठंज त्याला दोनीक वर्स हिनात. तहां एक दिस आश्विनान्या मेहेनांत त्याना झाशी बोडनांत बिसाड्यात. तो कान्हु मंग आंथरून करीहिन ठाकी रहना. ठाकी रहना तर त्याला निज आनी, अन् तठंज निजी ग्या. तहां घर बामण इसां आंखना, गवारी अजून काय करह? अजून घर ये नाहीं? तदवां तो बामण त्याला हेरूला ग्या तर त्या कान्हुला त्यानं निजलेला दुरजवठां हेरा. तठं त्यानं इसां हेरा कीं, माना गवारी निजनाहा. पण त्यानें महापा काय उचवायजंह? तो बामण बुडुं तरकदार हता तरी त्यानं उंग जाहिन हेरा तर एक मोठा हिरू फड फुगवीहिन कान्हुनें महावर सांवली धरीही. तिसांज हेरा अन् तो बामण मांगाज फिरना. अन् आपल्या घरामा जाहिन तो इचार करह. तहां त्यानं इसा इचार क्या कीं, कान्हुला कांहीं वाईट हेनार नाहीं. पन त्याला खरांज मोठा राज मिळील. अन् तो राजा हिल. वड्यांत कान्हु घर आना. घर आना तहां कान्हुला बामण इसां आंखह कीं, कान्हु तूं आज झसरापा जासील नको. आज तूं घरींज रह.

अन् मंग त्या बामणानीं आपल्या ओहोडीसला इसां आंखा की, खीर भोजन कर, अन् कान्हुला जेवूं घालुला आहा. तहां त्यानं कान्हुला आंघळुला तपवनेल पानी अपां. अन् बामणानें सोता खोबरा वाटीहिन कान्हुन्या आंगाला लावा. तहां कान्हु आंख, तात्या, मा ये तुमना उपकार कदवां खंडूं? मान्या आंगाला तुमी सोता खोबरा लावसाल नको. माने हाताखाल मा लावाहा. बामण आंख कान्हु, तुला काय? उपकार फेडायतील एक दिस? मंग बामणानी इसां कराहा कीं, आपल्या उंगमा कागद अन् दऊत-लिखनी दपाडीहिन बिसना. तहां तो ओहोडीसला सोदुला लागना, आतां आमाला दोघांला एक पंक्तीला जेऊला वाढ. मग ते बामणानें बायलसनी त्या दोहाला हारोबार दोन ठाव लावात. मंग दूध, खीर, चपाती, लाडू, इसां वाढांत. तहां ते दोन जन दोन ठावावर बिसनात. बामण तहां आंख, कान्हू, तूं ठावामा हात नको घालसील. आदी मानी गोठ ऐक. मा तुला आंखाहा तिसां तूं करशील का? कान्हू आंख, काय आखांहा तात्या? ऐकूं द्या माला, अन् आखां तरी? तर तात्या (बामण) इसां आंखह जर तुला राज्य मिळना तर तूं माला काय इनाम देशील? कान्हू इसा आंख, मा तुना ह्यसरा चारीहिन पोट भराहा, मला कन्संवठा राज्य ईल? तहां बामणानें कान्हुवर बुहुं भीड घालीहि. मंग कान्हू आंखह, मा तुमाला वळखीन. बामण आंख, जर तूं माला बक्षीस देशील तर तुनें हातनी माला या कागदावर सई करीहिन दे. मंग त्यानं कान्हुनें सई कागदावर लिविहिन लिदी. मंग तो कागद बामणानें पेटीमा लिहिन थेवा. अन् मग कान्हुला आंखना, आतां सवकास सडकी जेवा. मंग ते दोनीजन सडकी जेवनात. अन् मंग दुंसरे दिस कान्हू ह्यसरापा ग्या. तहां त्यानें मनामा एकदांसुंज हुकी भरनी अन् इस-पंचईस गवाऱ्यांनीं जमात करीहिन दरोबस्तानें हातामा टेनपा लिहिन कान्हुला आंखात, आमाला तूं कांसा वारहस? तर कान्हू आंख, जमात करीहिन चला आतां ये मानीगड किल्लावर जाऊं. अन् मंग तठं झोडाझोड करीहिन किल्ला आपलासा करूं. गवारी आंखत ये बेस आहा. मंग त्यांनीं जमात एक किल्ला लेतां लेतां सत्ताईस किल्ला खरा करीहिन त्यावर बावटा लावा. अन् मंग तो मानीगड किल्लावर राजा हीन बिसना. बिसना तदवां अंतुभट बामणाला यी खबर लागनी. तिसांज त्यांनीं तो कागद काहाडा अन् लिहिन कान्हुन्या भेटीला चालना तहां तो बामण मानीगड किल्लावर ग्या. तहां त्या कान्होजी राजानें सरदार, पर्धान त्याला धमकवत कीं, तूं राजवाड्यामा नको जासील. इसां ते त्याला बेहाडत. तो बामण त्यांला आंखह, माला कान्हुनें भेटीला जाहा. माला जाऊं द्या. मंग हुकूम हिना तदवां, राजाला हजर हिना. तहां त्याला कान्होजी अंग्यानें वळखा. तहां राजा आंखना, माना जुना धनाईस आना. मंग बामणानें त्याला त्यानीं सई दाखवी. ती हेरीहिन तो इसां आंखना, ये बामणानीं मावर बुहुं उपकार क्यात. तदवां तो चिखल्या गांव त्याला इनाम क्या. तर तो गांव आज पोंवत त्या अंतु भटालाच इनाम आहा.

STORY NO. 5.

BABAJI ĀNGRE.

बाबाजी आंग्रे.

मानीगड किल्लावर कान्होजी आंग्र्यानें बुहुत वर्सा राज्य क्या. त्याना लेकुस बारीकसा सोहरा बाबाजी आंग्रे याला लिहिन तो एक दिस पुण्याला नानासाहेबान्या कचेरीला ग्या. नानासाहेबानें त्याहला बुहुं आदरमान क्या. अन् बिसूं घाला. ती कचेरी मोठी हती, त्यांत भालदार, चोपदार, सरदार इतका मोठा मोठा लोक बिसनाहात. तहां राजा नानासाहेब त्याहला इसां आंख, मानी एक मोठी तुफान घोडी आहा ती कंदी कोनाला पाळण करूं दे नाहीं. तिनें बुहुं बिसनार लोकांला ठार मारी टाका. जर घोडी लिहिन तीवर कोनी बिसील, तर त्याला मा मोठा इनाम ओपीन. पण त्यानें सरदार लोक वर बिसुला खुसी हे नाहीं. तहां कान्होजीन्या उंग त्याना सोहरा बिसी हता, तो सोहरा बाहासला आंख, बा, माला राजा घोडीवर बिसुला हुकूम देतील तर मा तीवर बिसुला खुशी हिन. तदवा त्याना बाहास त्या सोहराला उगाज र, इसां आंखीहिन कोपरा खाल धोस्ल. तदवां हें धोसला सोता राजानें हेरा; राजा आंखना, त्याला कांसाला तुमी दाबाहा ? तो आंखा, मा त्याला इसां दाबाहा कीं, आपुन एक आंखते अन् तो कांहीं भलताच आंखह. तहा राजा त्या सोहराला आंखना, तुना बाहास तुला कांसा दाबह ? तूं त्याला काय आंखनास ? तीं माला आंख, तहां तो सोहरा त्याहला आंखना, बाबानें जर माला हुकूम करजतां तर मा घोडीवर उडी बिसतां. तिसांज राजानें खिजमतदाराला हुकूम क्या कीं, ती घोडी लिहिन या. मंग ती घोडीवर जीन घालीहिन, ठोकीहिन, लगाम घाली बाहेर काढी. मंग तिला कचेरीन्या मुहरं आनी. तहां त्या सोहराला राजाने हुकूम क्यां कीं, आतां तूं ये घोडीवर बिस. ती तुफान घोडी पांखरांगत दिसं. तिसांज याला हुकूम होतांच तिनें पाठाणावर तो सोहरा उडी बिसना. तिसींज ती घोडी काय काय करं पण तो सोहरा गच्च लुकटी रहना. मंग घोडी उताणी हिनी तर हा सोहरा पोटावर उडी बिसना. ती उपडी हिनी तिसां तो सोहरा पाठाणावर बिसना. अन् ती मुहरले पायांवर उभी रहनी तर तो तिन्या बगडीवर लुकटी रहना. तरी तो सोहरा घोडीला कधीं पडेल नाहीं. तिनें आपली खात्री खात्री करी लिदी. तदवां त्यानें ती घोडी एकसारखी काढी. अन् उन्हावी उन्हावी पुण्यानें समदे पेठंत भंगाडी. मंग ती बुहुं हुपारजी रहनी. अन् तिशीच दुसरून बोकलवी तर कचेरी मुहरंज लिहीन ग्या. मंग राजा अन् समदी सरदार मंडळी त्याला हेरिहीन बुहुत खुश हिनात. राजा आंख, याला काय बक्षीस ओपवां ? मंग त्याला कुलाबा किल्ला इनाम ओपां. अन् त्यानं तिकडं राज्य क्यां. त्या बाबा आंग्र्यानें नांवधारी आज पोंवत पनवेल तालुक्यानें आपटे गांवामा आहात.

KATKARI POETRY.

पुरुषांचीं गाणीं.

गाणें १लें. No. 1.

प्रश्न. माई लेकीना एक ओहोडास,
तूं आंखशील कोधांड.
कोधांड नाहीं रं, खरांच मा आंखा,
खरा का खोटा देहीला सोद.
नाहीं तुला आल्यावर थेव,
घागऱ्यांना चाळ.

उत्तर. लिखनी, दऊत मायलेकी,
त्यांनां ओहोडास कोरा कागद.

प्रश्न. वाऱ्या पाण्यांनी मोट,
कोनी रं बांधली.
जातीला जात मारी,
मेला पुरुष वारा घाली.

उत्तर. भाता, घण, ऐरण.

गाणें २रें. No. 2.

वशाडे वनामा तठं एक,
पिकनेल कोरूंदु.
त्यावर बिसनेल एक लिल्यां
माना लिल्यांत सोगा मोडं.

गाणें ३रें. No. 3.

भाऊ ग्या गुरांत हो हो
गुरं नाहीं ढोरांत हो हो
भाऊ ग्या म्हशींत हो हो
म्हशी नाहीं घुशींत हो हो
साळी गई शेळ्यांत हो हो
शेळ्या नाहीं मेळ्यांत हो हो.

गाणें ४थें. No. 4.

भावड्या हो हो
आघाडा वरपाया येरं.

गाणें ५वें. No. 5.

खांद्यावर घोंगडी हो हो.
हातांत खंजिरी, कानान्या
फटीला कैला मुठींत.
काय तुन्या मनांत,
सांग मान्या कानांत.

गाणें ६वें. No. 6.

सोम्या गोम्या रं
पाटलाना भात खादा खंडाया जाऊं.
आयानो बायांनो माला नाहीं
चालायजं गुडघी मानी दुःखती.

गाणें ६वें. No. 7.

इसां कुनबी लुंगा रं,
नांगराला धरी मुंगा रं.
इसां कुनबी येडा रं,
नांगराला धरी घोडा रं.

गाणें ८वें. No. 8.

केळुनें वाळुवर, ठकी मासा मार ;
वरवठां आना पूर, ठकी झोडं ऊर.

गाणें ९वें. No. 9.

खताडीचं शेत वान्यानं पिकलां,
इळ्यानं कापला, इळा कडप्यावर ठेवला.
तोही नारं इळा, तेथें नाहीं गवसला
मंग भारा बांधला इळा नाहीं गवसला
मळनी काढली तरी नाहीं गवसला
त्याही भाताची जातणी लाविली नाहीं गवसला
भात भरडला तरी नाहीं गवसला
त्याचा जेवण रांधला नाहीं गवसला
त्याही जेवनाची पेज रं काढली नाहीं गवसला
ती पेज पेयला लागलों
मंग इळा गवसला.

SONGS OF WOMEN.

बायकाचीं गाणीं.

गाणें १लें. No. 1.

माहुल्या व किल्याला पान्यान व हाऊद.
त्याही ना व हौदाला ग भागे
नवलाख पायऱ्या.
धावंदी मा उतरनी ग भागे.
पोशीखाल पानी पिदा.
हाऊदांत सोबकायनी ग भागे
हाऊदांत सोबकायनी.
भावानी व धरी काढा व भागे
भावानी व धरी काढा.
गरगर फिरवां ग भागे
गरगर फिरवां.
भडभड वकनी ग भागे, भडभड वकनी.

गाणें २रें. No. 2.

दरयांतली मासली कोनं मारं व
कोनं मारं.

दरयांतली मासली कोळी मारं व
कोळी मारं.

रामा लक्षीमण दोघे बंधु व
दोघे बंधु.

दोहांतून एकजन कळक तोडी व
कळक तोडी.

दोहांतून एक जन कांबी घसी व
कांबी घसी.

दोहांतून एक जन धुनु नांद व
धुनु नांदं.

दोहांतून एक जन शिकार खेळं व
शिकार खेळं.

एके वडीस बये व सांबर मारा व
सांबर मारा.

दोहांतून एक जन कावड घालं व
कावड घालं.

अशी सिता जानकी वांटा घालं व
वांटा घालं.

सिता जानकी वांटा मोजं व
वाटा मोजं.

सिता जानकी वांटा भरं व
वांटा भरं.

गाणें ३रें. No. 3.

काळी कपेली गाय व
मानी काळी कपेली गाय.

कळप्याला चुकली व
गायी कळप्याला चुकली.

मारगी नाहीं तिचं माग,
गोठणी नाहीं शेण व.
रंगण्यांत कपेली गाय व
रंगण्यांत कपेली गाय.
कोन्यानं खापरांत तिना रघात व
झेलकीला व झेलकीला.
त्यांनी व रघताचा डाग
नारी व पायावर.
धुवूला कन्स जासी व
नारे धुवूला कन्स जासी.
इरसाळीना टांका भरना पाण्या खालु
तिसऱ्या व टांक्यावरी.
सोंकट्याचा डाव व नारी.
त्याही ना सोंकट्याला डाग व
हिरवा न् पिंवळा.
इंदराना देव आंखून घांव
व माला आंखी देव.

गाणें ४थें. No. 4.

माना व झमझ्या कालनान्या दुकानीं
शेरभर दारू त्याला एकल्याला पाहिजे.
माना तं झमझ्या खाटकान्या व दुकानीं
शेरभर भाजीं त्याला एकल्याला पाहिजे.
माथेरानला धरील नांगरू व
धरील नांगरू.
पहिल्या तासांत जवारी पेरीली व
जवारी पेरीली.
त्या जवारी ढोपरानें मेज आन्या व
ढोपरानें मेज आन्या.

A CHILDREN'S SONG.

कातकरी मुलींचें गायन.

खरसिनी मानी तुमा तोर पेरु लागनी मा ॥
खरसिनी मानी तुमा तोर बेनू लागनी मा ॥
खरसिनी मानी तुमा तोर तोडू लागनी मा ॥
खरसिनी मानी तुमा तोर बांधू लागनी मा ॥
खरसिनी मानी तुमा तोर झोडु लागनी मा ॥
खरसिनी मानी तुमा तोर मापु लागनी मा ॥

SENTENCES OF CHILDREN.

माने पाठींज येशील कां ?

आपुन दोनी जन हारींज जाऊं अन् गिरंदली लिहीन यांऊं.

तेज डोंगराचे कुहरामा मयि कालदिस एक दपलेला ससा हेरेल.

कालदिस रामाला बुहुं मुराट गवसना.

न्यारूना वखद मोराना पिस आहा.

शी लागनी तहां मा कालदिस घोंगडी अंगावर लीहिन गुंडायजी निजना.

पर्वानादिस गोंधानी कोयती त्यानें आंकडीतून निंगीहिन त्यानें पायाला पास्तारायजी लागनी.

त्यानें गोडाला उंदज हिरू चावना.

त्या सोहरीनें माला बेहाडा.

मयि ती गोठ त्याला भंजवीहीन आंखी.

कांज्यामा काय काय भंजन घालहत ?

अनज वलायजी खावा.

त्या पा बेलखडी आहात.

आमनें बानी कालदिस उंबरन्या धरा.

त्या सोहरीनें अंगावर नुसत्या नांडरी आहात.

तो सोहरा बुहुंज बरवायजंह.

माला बुहु तीस लागनी ही.

A Vocabulary of the Katkari.

अ.

Kātkari	English	Marathi	Gujarati
अर्धा	Half	अर्ध	અર્ધ
असुं दे	Well	बरें, असूं दे	રેહેવા દે
अठं	Here	येथें	અઠે (Marwadi)
अठून	From here	येथून	ઈહાથી
अवठून	From here	येथून	ઈહાંથી
अन्	And	आणि	અને
अजून	Still	अझून	હજી

आ.

आन	And	आणि	અને
आडचणी	Difficulties	अडचणी	અડચણે
आनुज	Food	अनाज	અનાજ
आंग्ठुली	A ring	आंगठी	વીટી
आखना	To tell	सांगणें	કહેવું
आंतून	From inside	आंतून	અંદરથી
आपसाज	For nothing	उगीच	અમથું
आभुट	Sky	आभाळ	આભ
आळशी	Lazy	आळशी	આલસી
आपुन	Yourself	आपण	તમે
आपलास	By one's self	स्वतः	પોતાથી
आसोट	A whip	आसूड	ચાબુક
आपळना	To dash against	आपटणें	અફાળવું
आननां	To bring	आणणें	લાવવું
आश्विन	The 12th lunar month (Sep.-Oct.)	अश्विन	આશ્વિન
आंघळू	A bath	आंघोळ	નાહાવું

इ.

Kātkari	English	Marathi	Gujarati
इंगोळ	Live coal	विस्तू	અંગાર
इखी	Respecting, regarding	विषयीं	વિષે
ईसई	Respecting	विषयीं	વિષે
इसा	Such, so, like	असा	એવો
इंधना	To hunt with a spear	विंधणें	વિંધવું
इंधि	A spear	भाला	ભાલું
इसरना	To forget	विसरणें	વિસરવું
इचार	Thought	विचार	વિચાર
इळा	A sickle	इळा	છરો
इकना	To sell	विकणें	વેચવું

उ.

उडना	To fly	उडणें	ઉડવું
उंग	Near	जवळ	પાસે
उंगना	To rise	उगवणें	ઉગાવવું
उलुसांज	Only a little	थोडासाच	થોડુંજ
उखडना	To boil	उकडणें	ઉખેડવું
उजडना	To make bright	उजडणें	ઉજાળવું
उचवायजना	To raise and let down	उंच नीच होणें	ઉંચનીચ થવું
उंगमा	Near	जवळ	પાસે
उन्हावना	To cause to fly	उडविणें	ઉડાવવું

ऊ.

ऊर	The chest	ऊर	ઉર

ए.

एकदासूद्ध	At once	एकदम	એકદમ
एकमेक	One another	एकमेक	એકમેક
एरीज	Easily	सहज	સહજ

ऐ.

Kātkari	English	Marathi	Gujarati
ऐरण	Anvil	ऐरण	એરણ

ओ.

ओपना	To give	देणें	દેવું
ओढा	So much	एवढा	એટલું
ओहडी	Wife	बायको	બાયડી
ओहडीस	Wife	बायको	બાયડી
ओहस / ओहोस	Daughter-in-law	सून	વહું
ओहोडास	A husband	नवरा	વર

क.

कनाका	Some one	कोणी एक	કોઇએક
कामकरी	Industrious	उद्योगी	ઉદ્યોગી
किशाला	Why	कशाला	કેમ
करना	To do	करणें	કરવું
कनी	Any, some	कोणी	કોઇ
कव्हढी	How big	केवढी	કેવડું
कई	Ever, at any time	कधीं	કદી
कां	Or	किंवा	કે
किरला	A crab	खेकडा	ખેંકડો
काहळी	Musical instrument	सनई	સનઈ
कुडवान	Bitter	कडू	કડવું
कुकडा	A cock	कोंबडा	કુકડો
कुकडी	A hen	कोंबडी	કુકડી
केल्या	A monkey	केलडें O. M.	માકડ
कठ	Where	कोठें	કહીં
कठव	Where	कोठें	ક્યાં
कापना	To cut	कापणें	કાપવું
कालदी	Yesterday	काल	કાલે
कडून	From	कडून	તરફથી

Kātkari	English	Marathi	Gujarati
कड	Near	कडे	પાસે
कठं	Where	कोठें	ક્યાં
कुन्सह	Where	कोठें	ક્યાં
कुन्स	Where	कोठें	ક્યાં
कठून	Whence	कोठून	ક્યાંથી
कुसटां	Whence	कोठून	ક્યાંથી
कदवा	When	केव्हां	ક્યારે
कुसं	Where	कोठें	ક્યાં
कथोडी	Katkari	कातकरी	કાતકરી
काथोडीन	A female Kātkari	कातकरीन	કાતકરી
कांजी	Gruel	कांजी	કાંજી
कुसना	Whence	कोठून	ક્યાંથી
काय	What	काय	શું
कन्सवठा	Whence	कोठून	ક્યાંથી
कोषांड	Useless	भलतेंच	અમથું
का	Or	किंवा	કે
कोरुंदु	A fruit	करवंदें	કરમદું
किसा	How	कसा	કેવો
कुटना	To beat	कुटणें	કુટવું
कालदिस	Yesterday	काल	કાલે
कुळी	Family name	आडनांव	આડનામ
कोडीक	How many	किती	કેટલા
कोल्हा	A fox	कोल्हा	કોલ્હો
कान	Ear	कान	કાન
कैला	Vegetable	भाजी	શાક
कळक	Large bamboo	कळक	કાંબ
कांबी	Split bamboo	कांबीट	
कोणानीकाय	A certain	कोणी एका	કોઇએક
कोडांक	How large	केवढा	કેટલો
किसांक	Of what sort ?	कसें	કેવું

ख.

Kātkari	English	Marathi	Gujarati
खपना	To be sold off	खपणें	ખપવું
खाना	To eat	खाणें	ખાવું
खेदना	To feel grieved	खेद पावणें	ખેદ કરવું
खोंड	Buffalo calf	खोंड	પાડું
खेळना	To play	खेळणें	ખેલવું
खाल	Down	खाली	નીચે
खून	Down	खाली	નીચે
खालवठा	From underneath	खालून	નીચેથી
खिळा	The joint	सांधा	સાંધા
खड्या	A tiger	वाघ	વાઘ
खंडना	To break	फोडणें	ફોડવું
खाल	Sign of instrumental case	नें	એ
खरा करना	To win	जिंकणें	જીતવું
खोटा	Untrue	खोटा	ખોટું
खांदी	A twig	खांदी	કંખલી
खंजिरी	Tamborine	खंजिरी	ખંજરી
खबरदार	Rich	धनवान	ધનવાન

ग.

गोठ	A story	गोष्ट	વાત
गळना	To sift	गाळणें	ગાળવું
गोहर	Iguana	घोरपड	ઘો
गत	Similar	गत	જેવું
गांठी	Beads of glass	पोत	કાચનાપારા
गवसना	To find	सांपडणें	મળવું
गवारी	A cowherd	गोवारी	ગોવાળ
गुडघी	The knee	गुडघा	ગોઠણ
गय	Pardon	गयि	માફી

घ.

Kātkari	English.	Marathi	Gujarati
घरटी	A hand mill	जातें	ઘંટી
घागरी	A small jingling bell	घागरी	ઘુઘરી
घण	Sledge hammer	घण	ઘણ
घोंगडी	A blanket	घोंगडी	કામળી

च.

चिड	A bird	पक्षी	પંખી
चिंधी	A kind of cloth worn by women	लुगडें	સાડી
चिरायना	To tear	फाडणें	ફાડવું
चारी	Grass, straw	चारा	ચારો
चडना	To ascend	चढणें	ચઢવું
चोखोट	Good	चोख	ચોખો
चारवा	Fourth	चौथा	ચોથો
चाळ	Tinkling ornaments	चाळ	ઘુઘરી

ज.

जिवात	Living	जीवंत	જીવતું
जिमा	Together	जमा करणें	એકઠું કરવું
जरा	Fever	ताप	તાપ
जठं	Where	जेथें	જ્યાં
जेवठा	Where	जिकडे	જ્યાં
जठून	Whence	जेथून	જ્યાંથી
जेवठून	Whence	जिकडून	જ્યાંથી
जिनु	Whence	जिकडून	જ્યાંથી
जदवा	When	जेव्हां	જ્યારે
जिसा	As	जसा	જેમ
जग	The world	जग	જગ
जात	Caste	जात	જાત
जातणी	Large mill	जातणी	ઘંટ
जुरुकसा	Very little	जरासा	જરાક

झ.

Kātkari	English	Marathi	Gujarati
झांपडी	A blind person	अंधळा	આંધળો
झगडना	To fight	भांडणें	ઝગડવું
झारना	To strain	गाळणें	ગાળવું
झाडना	To thrash	झोडणें	ઝાડવું

ट.

टाकना	To shave	हजामत करणें	હજામત કરવી
टोकळा	Mouth	तोंड	મોઢું
टेपा	A hill	टेंकडी	ટેકરી

ठ.

ठेपना	To arrive at	ठेपणें	પોહોંચવું
ठेवना	To put	ठेवणें	મુકવું
ठाकना	To sleep	सहज नीजणें	સુઇ જવું
ठाव	A culinary utensil	ताव	તાવડી
ठोकना	To beat	थापणें	ઠોકવું

ड.

डोळा	Eye	डोळा	આંખ
डवरा	Old man	ह्यातारा मनुष्य	ડોસો
डोइ	Head	डोकें	માથું
डोसी	Old woman	ह्यतारी	ડોસી
डोर	A musk melon	चिभूड	ચિભડું
डुडजीं विसना	Sit in ambush	दबा धरून बसणें	કંપટથી છાનું બેસ

ढ.

ढवढव	A waterfall	ढवढवा

त.

Kātkari	English	Marathi	Gujarati
तठ	There	तेथें	ત્યાં
तव्हां	Then	तेव्हां	ત્યારે
तातडीच	Soon	लवकर	તરત
तिडका	Stroke	तडाखा	તડાકો
तीड	Locust	टोळ	તીડ
तेस्व	The opposite side	पलीकडे	પડએ
तेसवठा	Behind	मागून	પછવાડે
तठं	There	तेथें	ત્યાં
तेवढा	There	तिकडे	ત્યાં
तठून	Thence	तेथून	ત્યાંથી
तेवठून	Thence	तिकडून	ત્યાંથી
तिनु	Thence	तिकडून	ત્યાંથી
तदवा	Then	तेव्हां	ત્યારે
तिसा	Like that	तसा	તેવો
तिस	Thirst	तहान	તરસ
ताना	A creeper	वेल	વેલ
तहा	Then	तेव्हां	ત્યારે
तोर्णे	A fruit	तोरणें (फल)	એક જાતનું ફલ
तिकडसा	Thence	तिकडून	ત્યાંથી
तरकदार	Shrewd	तर्कवान	તર્કવાળો
तपवना	To warm	तापवणें	તપાવવું
तंवर	Till then	तों वर	ત્યાંસુધી

थ.

थेवना	To put	ठेवणें	મુકવું
थोपकी	Funeral pyre	प्रेत पेटविणें	ચિતા

द.

Kātkari	English	Marathi	Gujarati
दिसानादिस	Day after day	दिवसेंदिवस	દિવસો દિવસ
दिस	A day	दिवस	દિવસ
दड	Near	जवळ	પાસે
दुकाळ्या	Poor	दरिद्री	દરિદ્રી
दिस्टी	Sight	दृष्टी	દૃષ્ટી
दिव्य	Sun	सूर्य	સૂરજ
दुःखना	To pain	दुखणें	દુખવું
देडूक	Frog	बेडूक	દેડકો
दूर	Far	दूर	દૂર
दाहाडा	A pit for water / A deep pond	डोह	ધુનો
दुसरून	Again	पुनः	ફરી
दोनीक	One or two	दोन एक	બેએક
दुरजवठा	From far	दूरून	દૂરથી
दपाडना	To hide	लपविणें	છુપાવવું
दरोबस्त	All	दरोबस्त	બધા
दऊत	Inkstand	दऊत	દાત

ध.

धाकटा	Little	धाकटा	નાનો
धरना	To catch	धरणें	પકડવું
धावंदी / धाऊंदी	Running	धावत	દોડ દોડતો
धनू	A bow	धनुष्य	ધનુષ
धोतीर	A dhotar	धोतर	ધોતીયું
धवना	To wash	धुणें	ધોવું
धनाईस / धनायस	Master	धनी	ધણી
धोसना	To strike a blow	दुसण्या मारणें	જોરથી મારવું

न.

Kātkari	English	Marathi	Gujarati
नेट	Strength	नेठ	બલ
नदर	Sight	नजर	નજર
नांगोळी	Weasel	मुंगूस	નોળીઓ
नागली	Natchni, a grain	नाचणी	નાંગલી
निडाळ	The forehead	कपाळ	કપાળ
निंगना	To start	निघणें	નિકળવું
निजना	To sleep	निजणें	ઉંઘવું
नई	A river	नदी	નદી
नांगोर	A plough	नांगर	હળ
निस्ता	Merely	नुस्ता	ફકત
नांदना	To sound	नाद करणें ?	નાદ કરવો

प.

परपंच	Wordly affairs	प्रपंच	પ્રપંચ
पण	But	पण	પણ
पाणी	Water	पाणी	પાણી
पडना	To fall	पडणें	પડવું
परमान	Like	प्रमाणें	પ્રમાણે
पिसा	Money	पैसा	પૈસો
पळना	To run	पळणें	નાસવું
पन	Determination	निश्चय	નિશ્ચય
पोंना	To put on	पहेरणें	પહેરવું
परमईसवर	God	परमेश्वर	પરમેશ્વર
पस्तावना	To repent	पस्तावणें	પસ્તાવવું
पाठी	Along with	संगती	સાથે
पिरना	To sow	पेरणें	વાવવું
पिकना	To ripen	पिकणें	પાકવું
पासून	From	पासून	થી
पा	Near	जवळ	પાસે
पुरी	Flood	पूर	પૂર
पाळण करना	To sit on the back	पाठीवर बसणें	વાસા ઉપર બેસવું
पाठाण	Back	पाठ	પીઠ
पोशी	Double handful	ओंजळ	ખોબો
पुरवटां	Sufficient	पुरेल तितकें	પુરતું

फ.

Kātkari	English	Marathi	Gujarati
फुलना	To blow with the mouth	फुंकणें	ફુંકવું
फुईस	Aunt	मामी, फुइजी	ફુઈ

ब.

बिंकूल	Altogether	बिलकूल	બિલકુલ
बांडगा	Bad	वाईट	બાંડીયા
बिघडना	To spoil	बिघडणें	બગડવું
बई	Mother	आई	મા
बिसना	To sit	बसणें	બેસવું
बगाडी	Neck	गळा	ધાંટો
बा	Father	बाप	બાપ
बास	Father	बाप	બાપ
बाहस	Father	बाप	બાપ
बार	Door	दरवाजा	બારણું
बेस	Good	चांगला	બેશ
बथा	Down	खाली	નીચે
बाहेर	Outside	बाहेर	બારે
बारका	Little in size	लहान	નાનું
बायलस	Wife	बायको, बाईल	બાઇડી
बहु	Much	बहू	બહુ
बेत	Intention	बेत	બોંહોંત
बराच	Considerable	बराच	ઘણું
बेनना	To weed	बेणणें	ખેડવું
बार	Time	वेळ	વખત
बिसाडना	To cause to sit	बसविणें	બેસાડવું
बेहाडना	To threaten	भय दाखविणें	બિહરાવવું
बोकलवना	To rush	भरधांव काढणें	દોડવું

भ.

Kātkari	English	Marathi	Gujarati
भाग	Portion	भाग	ભાગ
भंगना	Weak	अशक्त	અશકત
भावला	Brother	भाऊ	ભાઈ
भाऊस	Brother	भाऊ	ભાઈ
भीस	Buffalo	म्हैस	ભેંસ
भिंगुडीं	Butterfly	पाकोळी	ભીગારો
भावड	Brother-in-law	मेहुना	બન્હેવી
भोंवती	Around	सभोंवती	ચોતરફ
भुकनी	Hungry	भुकी	ભુખ્યો
भोंवळ	Giddiness	चक्कर	ચક્કર
भुई	Ground	भुई	ભોંય
भारी	Much	भारी	ભારી
भुसळना	To die	मरणें	મરવું
भंगाडना	To weary	दमविणें	થકાવવું
भाता	Bellows	भाता	ધમણ
भरडना	Grind coarsely	भरडणें	ભરડવું
भडभड	Quickly	भराभरा	ભરાભરા
भुलवायना	To lose	गमावणें	ગમાવવું

म.

मू	Mouth	तोंड	મોં
मुदी	An earring	बाळी	બાળી
मातर	Only	मात्र	માત્ર
मैतर	A friend	मित्र	મિત્ર
मग	Then	मग	પછી
मेजना	To count	मोजणें	ગણવું
मांगाज	Back, again	परत	પાછું
मिळना	To obtain	मिळणें	મળવું
मनस्री	Excessive	मनस्वी	મનસ્વી
माया	Affection	माया	માયા
माढाळ	From above	वरील	ઉપરથી

Kātkari	English	Marathi	Gujarati
मा	I	मी	હું
मालीक	Owner	मालक	માલીક
मायाना	Affectionate	मायाळू	માયાળુ
मारुग	Way	मार्ग	માર્ગ
मरना	To die	मरणें	મરવું
मनून	Therefore	म्हणून	એટલે
मोडना	To break	मोडणें	તોડવું
माठा	In	मध्यें	વચમાં
मनिसी	Excessive	मनस्वी	મનસ્વી
माग	Behind	मागें	પાછળ
मोफ	Much	फार	બહુ
मजार	In	मध्यें	વચમાં
मागून	From behind	मागून	પછવાડેથી
मुहरं	Before	समोर, पूर्वी	સામે
मनष्टी	Cemetery	म्हसणवटा	મસાન
मेहेना	Month	महिना	મહિનો
मह्ा	Mouth	तोंड	મોં
मांगाज	Behind	मागेच	પછી
मायलेकी	Mother and child	मायलेक	મા દિકરી
मुठी	Fist	मुठी	મુઠી
मुंगा	Large ant	मुगळा	મુંગળો, કિડો
मासली	Fish	मासोळी	માછલી
मुरदाडा	Fool	मुर्ख	મૂરખ
मेळना	To obtain	मिळवणें	મેળવવું

य.

येळ	Time	वेळ	વખત
येर	Others	बाकीचें	બાકીના
यपना	To faint	व्याकूळ होणें	બેશુદ્ધ થવું
येडा	Mad	वेडा	ઘેલો

र.

Kātkari	English	Marathi	Gujarati
रडना	To cry	रडणें	રડવું
रहना	To remain	राहणें	રહેવું
रागेजी	Angry	रागीठ	ધુસાવાળો

ल.

लेना	To take	घेणें	લેવું
लहा	Quickly	त्वरा	વેહલું
लेकूस	Son	मुलगा	છોકરો
लागना	To touch	लागणें	લાગવું
लाहा	Quickly	लवकर	વહેલું
लगेच	At once	लगेच	તાબડતોબ
लुकटना	Stick to	चिकटणें	ચિકટવું
लिखनी	A pen	लेखण	લેખણ
लिल्या	A bird	एक पक्षी	એક પંખી

व.

वाकना	To dig	उकरणें	ખોદવું
वारना	To call	बोलावणें	બોલાવવું
वायला	Different	वेगळा	વેગળું
वाढना	To serve food	वाढणें	જમવું
वावरा	Humble	दीन	ગરીબ
वाईच	A little	थोडेसें	થોડુંક
वाटना	To think	वाटणें	લાગવું
वर्सा	A year	वर्ष	વરસ
वरसना	To rain	पाऊस पडणें	વરસવું
वाळूका	A cucumber	काकडी	કાકડી
विकना	To sell	विकणें	વેચવું
वल्हायना	To put out, to be extinguished	विझविणें, विझणें	બુઝાવવું

Kātkari	English	Marathi	Gujarati
वठा	In	आंत	અંદર
वडा	So great	एवढा	એટલો
वर	On, above	वर	ઉપર
वगर	Without	वांचून	વગર
वठी	From	ऊन (प्रत्यय)	થી
वरठा	From above	वरून	ઉપરથી
वरवठा	From above	वरून	ઉપરથી
वाळी	Ill	आजारी	માંદો
वखद	Medicine	औषध	ઓષધ
वज	Slowly	हळू	ધીમે
वाहरना	To call	बोलावणें	બોલાવવું
वराड	Marriage	लग्न	લગન
ववर	Cellar	माजघर	.....
वळ्यांत	At this instant	इतक्यांत	એટલામાં
वहडास	Husband	नवरा	વર
वर्स	Year	वर्ष	વરસ
वांटना	To distribute	वांटणें	વાટવું
वळखना	To recognize	ओळखणें	ઓળખવું
वशाडे	Desert	ओसाड	રાન
वन	Forest	वन	વન
वकना	To vomit	ओकणें	ઓકવું
	श.		
शेंप	A tail	शेंपूट	પુછડી
शेड	Cliff	कडा	.....
शेनप्ड्या	Dung cake	गवऱ्या	છાણુ
	स.		
सेट	Sheth	शेठ	શેઠ
सोहरा	Boy	मुलगा	છોકરો
सौसार	Worldly affairs	संसार	સંસાર
सोब्ती	Companion	सोबती	સોબતી
सवट	End	शेवट	છેવટ

Kātkari	English	Marathi	Gujarati
सिकविना	To teach	शिकविणें	શિખાડવું
सारा	All	सर्व	બધું
समजी	Pacification	समजूत	સમજુતી
सोधना	To ask	विचारणें	પુછવું
सवड	Remedy	उपाय	ઉપાય
सोगा	The bushy part of the tail	शेपटाचा झुबका	પુછડીનો ગુછો
सोबकायना	To strike against	आपटणें	પછડાવું
सम्रत	Strength	समर्थ	સમરથ
सावद	A wild animal	श्वापद	શ્વાપદ
सांकटी करना	Chop in pieces	बारीक सांकटणें	ઝીણું કરવું
सोद	Thought	विचार	વિચાર
समुर	Before	समोर	સામે
सरसें	Fully	पूर्णपणें	પૂર્ણપણે
सबद	A word	शब्द	શબ્દ
सदिघटका	Always	नेहमी	નેહમી
सुना	A dog	कुत्रा	કુત્રો
सापरना	To find	सांपडणें	મળવું
सोहरी	A girl	मुलगी	છોકરી
साय्य	Teakwood	साग	સાગ
सिहीज	Truly	खरोंखर	ખરેખર
सारा	Like	सारखा	જેવો
साठीं	For	साठीं	સારૂં
सीं	With	शीं (प्रत्यय)	સાથે
सी	Cold	थंडी	શીત
सादना	To call at a distance	साद घालणें	સાદ કરવો
सोदना	To ask	विचारणें	પુછવું
सोता	Self	स्वतः	પોતે
सासूस	Mother-in-law	सासू	સાસૂ
सडकी	Plentifully	चापून	વધારે આપવુ
सवकास	Slowly	सावकाश	ધીમે

ह.

Kātkari	English	Marathi	Gujarati
हेरहच	Attention	लक्ष	નજર
हेरना	To look	पाहणें	જોવું
हेडसना	To show contempt	धिक्कार करणें	ધિક્કારવું
हरकीत	Joyful	हर्षित	હરખેતો
हिरु	A snake	सांप	એરૂ
हाठ	For	मुळें	માટે
हाठीं	For	साठीं	માટે
हून	From	हून	થી
हुपारा	Perspiration	घाम	ઘામ
हुपाजीं	Sweaty	घाम आलेला असा	ઘામ આવેલો
हवा	Must	पाहिजे	જોઇએ
हिवळना	To become chilly	थंड होणें	ટાઢું થવું
हिडना	To hunt game	शिकार करणें	શિકાર કરવો
है	Yes	होय	હાં
हारोबार	In a row	ओळीनें	હારદોર
हात	Hand	हात	હાથ
हाळ्या	A crow	कावळा	કાગડો
हिसप	Account	हिशेब	હિસાબ

terrible truth, and, feeling himself and his family hopelessly defiled, went to the King's court to obtain permission to commit suicide in the Tungabhadra. When the permission was granted, he and his family drowned themselves in the river. The office of Goudaki falling vacant was given to the ancestors of Mr. Gouda after the payment of the usual *nesarana* in Varahas, the current coin of the realm. Empires have come and gone. Bijapur succeeded Vijayanagar, and the Marathas and the British, Bijapur; but the legend of the old Patil still survives, and a narrow chasm in the bed of the Tungabhadra is still pointed out as the scene of this tragic story.

In support of this legend, Mr. Gouda gave me a copper-plate which is said to be the Pattá of his family office. I reproduce the plate which is in Canarese. The letters are more like Telagu than pure Canarese. The plate measures 7¼″ × 5½″, and is written on one side only. It has got a digit of the moon in the upper right corner, and there are 22 lines of inscribed matter.

॥ ಶ್ರೀವಿರುಪಾಕ್ಷನಿಂಗ ಎನಮಃ ॥

ನಮಸ್ತುಬೆ । ಸಿರಸ್ತುಬೆ । ಚಂದ್ರಚಾಮರಾ । ಚಾರುವೆ । ತ್ರೈಲೋಕ್ಯೆ । ನಗರಾರಂಬೆ । ಮೂಲಸ್ತಂಬುವೆ । ಶೆಂಬುವೆ। ಶೆಂಬುವೆ । ಸ್ವಸ್ತಿ ಶ್ರೀಮದ್ವಜ ಕಾಲ್ಲಿವಾಹನ ಶಖ ವರುಷಂಗಳು ೧೪೪೬ ನೆಯ ವಿಕ್ರಮನಾಮ ಸಂವಸ್ಸರದ ಚಯತ್ರ ಶು॥ ೭ ಲು ಶ್ರೀಮದ್ರ ರಾಜದಿರಾಜ । ರಾಜಪರಮೇಶ್ವರಾ । ಶ್ರೀವೀರ ಪ್ರತಪಾ । ಶ್ರೀ ರಾಮಚಂದ್ರರಾಯರು । ಚಂದ್ರಗಿರಿ । ಪಟ್ಟಣದಲ್ಲಿ । ರತ್ನಸಿಂಹಾಸನ ರೂಢ ರಾಗಿ । ಪೃಥ್ವಿರಾಜಂಗೈಯತಿರಲು । ಹಸ್ತಿನಾವತಿಯ ಕೃಷ್ಣರಾಯರು । ಈ ಪಟ್ಟಣಕೆ ಸಲುವ । ಪ್ರತಿನಾಮಗಳಾದ ಚೆತ್ರವಾಡಿಗೆಯ ಸ್ತಳದ ಸಿನಬಾಗ ಲಿಂಗ ರಸಯ್ಯಗೆ । ಪಾಲಿಸಿ ಬರದು ಕೊಟ್ಟ ಗವುಡಿಕೆ ಸ್ವಸ್ತಿ ಕ್ರಮವೆಂತೆಂದರೆ। ಈ ಗ್ರಾಮದಾ । ಪೂರ್ವದ ಲೋಕನಾಥ ಗವುಡನು । ತನ್ನ ಮಗಳಿಗೆ । ಕೆಬುಳ ಯನು । ತನ್ನ ಕುಲವ ಮಾಜಿಕೊಂಡು । ಬ್ರಹ್ಮಣ ವೆಶವ ತೊಟ್ಟುಕೊಂಡು ಕನ್ನಿಕೆಗೆ ಮನೆ ಅಳ್ಳೆತನಕೆ ಬಂದು ಇರಲಾಗಿ । ಆ ಗವುಡನು ಅರೆದಶೆ । ಅವಗ ವಿನಹ ಲಗ್ನವ ಮಾಡಿಕೊಟ್ಟರು । ತರ.ವಾಯ ಅವನ ಪೂರ್ವದಾ । ತಾಯಿ ಬಂದು । ಗುರುತಕಂಡು ತನ್ನ ಮಗನ ಸಂಗಡ । ಮಾತನಾಡಿದಲ್ಲಿ, ಕುಲ ಪ್ರಕ ಟವಾದ ನಿಮಿತ್ಯೆ । ಲೋಕನಾಥ ಗವುಡನು । ಕಣುಗಂಡು । ತನ್ನ ವವುಕನ್ನಿ ಕೂಡಿಕೊಂಡು । ಈ ಲೋಕದಲ್ಲಿ ಇನ್ನು ಇರಬಾರದುಯೆಂದು । ದಬೆಸರಕ್ಕಾಗೆ ಹೋಗಿ ತನ್ನ ಪುತ್ರ ಪುತ್ರ ಸಂತಾನಾ । ಇರಲಾಗದುಯೆಂದು ತನ್ನ ಐವು ಕ್ಷಯ

ವಾಗಿ । ಅಳಿದು । ಹೋದ ಕಾರಣ । ಆ ಗವುಡಿಕೆ ಸ್ವಸ್ತಿಮು ಅರಮನೆಯ ವಾಸವಾಗಿ । ಇದಲ್ಲ । ಆ ಗ್ರಾಮವು ನಕೆರ್ದಿ ಪೊಡುವ ಬಿಳುಬಿದು । ಇರಲಾಗಿ । ಆ ಗವುಡಿಕೆಯನು । ನಿಮಗೆ ಕೊಟ್ಟು ನಿಮ್ಮ ಕೈಯಲು । ಉಡುಗೊರಿಗೆ ನಾಣ್ಯಗೆ ೬೭೦ ಅಕ್ಷರದಲ್ಲಿ ಆರು ನೂರು ಯಪ್ಪತ್ತು ವರಹನು ತಕ್ಕೊಂಡು ಆ ಗವುಡಿಕೆ ಸ್ವಸ್ತಿಯನು ನಿಮಗೆ ಪ್ರತಿಪಾಲ್ಲಿಸಿ ಕೊಟ್ಟುಯಿದೆವೆ । ನಿನ್ನ ಪುತ್ರ ಪವುತ್ರ ಪಾರಂ ಪರಿ ಆಚಂದ್ರಕಾಲಸ್ತಯಗಳಾಗಿ । ಆ ಗವುಡಿಕೆಗೆ ಸಲುವದು । ಅಕ್ಷಿಣಿ । ಅಗು ಮಣಿ । ತ್ರುಣ । ಜಲ । ಪಾಷಾಣ । ನಿಧಿ । ನಿಕ್ಷೇಪ । ಇವು ಮುಂತಾದಾ ಸಿಧ ಸಾಧ್ಯಗಳೆಂಬ ಆಧ್ಯೆನಾ । ಆಗಮ ಸಾಮಿಗಳ್ಳನೂ ಉಟಮಾಡಿಕೊಂಡು ಗ್ರಾಮ ಕೆರ್ದಿ ಮಾಡಿಕೊಂಡು ಸುಕದಲು । ಇಹೊದುಯಂದು ಪಾಲ್ಲಿಸಿ ಕೊಟು ಇಧೆವೆ ಯಂದು ಬರದು ಕೊಟೆ ಪಟೆ

TRANSLATION :—" REVERENCE TO THE GOD VIRUPAKSHLINGA.

"Reverence to Shambhu who is made beautiful by a chowri in the form of moon that rests upon his head and who is the foundation pillar for the erection of the city of the three worlds. Hail ! In the year 1442 of the glorious Shalivahan era, and on the 7th day of the bright half of Chaitra of the cycle year Vikrama, the great and glorious Ramchandra, who was the king of kings, the great lord, and the omnipotent, having mounted on the throne of precious jewels situated in the city of Chandragiri, was ruling all over the world, a grant of the office of the 'Gouda' of this village, which was fittingly named 'Chitravadige' by Krishnaraya, king of Hastinavati, was made in writing to Shenbhog Ling Rasayya as follows :—

The former Lokanatha Gouda of this village had a daughter whom he gave unknowingly in marriage to a Shebuchaya who came in the disguise of a Brahmin not giving out his own caste, and who had remained in the house of the Gouda as his son-in-law brought up in the house. Afterwards his former mother came there and, having recognized him, held conversation with her son. This circumstance revealed his true caste, of which fact the Gouda was fully convinced. Having collected all the members of his family with the intention of self-destruction, he went to Darbha Sarala, wherein he and his family disappeared. Thus the whole family being extinct, the office and property of Goudaki escheated to the State. As the village remained unmanaged, we give the office of Goudaki to you after having received from you 670 Varahas. The office is given to you, and we give this grant in writing. You should maintain the village and enjoy the office, happily by your son and grandson perpetually so long

as the moon lasts, with all the existing and future benefits attached to it, such as Akshini, Agamini, Trina, &c."

REMARKS.—The year of the plate, 1442, refers to past or Gatabda, while the current year is Vikrama. The plate seems to be of doubtful authenticity unless it is supposed that Ramraya was Governor of Chitradurga, an administrative district in which Chitwadigi was situated. The titles of Ramraya given in the plate properly belonged to Krishnaraya who was then the Emperor of Vijayanagar. However, there are instances in which such titles are applied to local chiefs only out of exaggerated respect even when they were subordinates to a central authority. In these feudal times local chiefs were almost independent, and they used titles which were only applicable to paramount rulers. This Ramraja, descended from a family of petty chiefs, was the son-in-law of Krishnaraya who was actually ruling in this year 1442 (1520 A.D.).

The language of the plate is not pure, and the Sanskrit verse is wrongly spelt. Probably, the mistakes are due to ignorance of the local goldsmith who must have executed the work. The plate, though it begins with the usual verse of Vijayanagar plates, has not got the usual conclusion in "Virupaksha." The mention of Krishnaraya's name without any titles is also remarkable. It is not possible to prove the authenticity or otherwise of this plate, unless we can see the connection of Ramraya with Chitradurga in other grants of that chief. I, however, ventured to publish this plate on account of the curious legend it contains.

The village "Chitwadigi" is a corruption of "Chitravatika," meaning "a beautiful garden." It is said that the place was a suburb of Vijayanagar and founded by Krishnaraya for the recreation of his wife, Queen Tirumaladevi.

The place "Darbhsarla" mentioned in the grant is four miles from the village Chitwadgi and near the deserted village of Narsapur, in the bed of the river. It is a narrow chasm cut in solid rock, through which the river rushes with great force.

any entire pieces of sculpture found within or about them were the only objects of archæological research, whilst no attention was paid to the character and size of the building, or to what bricklayers would call the "bond" of the bricks, their moulding, size, &c.—matters from which important deductions might possibly be drawn as to the age, purpose, arrangement and relations of sculptures, and history of a structure. Whilst a skilled excavator would carefully note the relative position of every fragment of sculpture, and preserve the smallest as well as the more entire pieces of sculpture—noting and keeping together all those found near each larger piece—with the object of piecing them together, the virtuoso collects only what seems of interest without note of other fragments found close by, so that no clue is preserved that might help us to re-construct the original in our minds.

The same principles apply *mutatis mutandis* to all the various branches into which archæology pushes its researches. In epigraphy, we have had men like Dr. Taylor in Madras and Dr. Bird in Bombay, who seemed unable to confess defeat, and who published the most astonishing versions of old inscriptions drawn from their own over-fertile imaginations, instead of patiently following in the paths of previous discovery.

Fortunately, there were men like Jas. Prinsep, Sir Walter Elliot, Mr. Wathen, and others, who prosecuted their studies on scientific principles and prepared the way for their successors. In Europe, the science was taking shape on inductive lines; facts were not sought to fit into hypotheses, but allowed to tell their own story, and so, in due course, to evolve true theories. Along with this, in the practical work of research, methods have been formulated so as to obtain from every department of archæological research all the possible knowledge that survey and excavation can afford: and thus it becomes essential that every excavator of ancient remains should be a trained expert, if he is not to destroy rather than to recover much of the information that is to be obtained.

It is unnecessary to trace the history of Indian archæology during the first half of the eighteenth century; good work had been done by many scholars, though it was not always strictly scientific. The great exponent, however, of scientific archæology as applied to Indian monuments was the late Jas. Fergusson, D.C.L., LL.D., C.I.E., F.R.S., (1808—1886). Between 1834 and 1845 he had made frequent and long tours all over India, measuring and drawing with his own hand the more remarkable monuments. In 1843 he laid before the Royal Asiatic Society his first paper—that on *The Rock-cut Temples of India*—and, though the number of objects described in it was large,

and the accounts necessarily much compressed, the mode of treatment was on new and scientific lines—the first essay in a science which, it may almost be said, he was preparing to create. Others, as he remarked, "had only visited the caves and temples incidentally while travelling on other avocations, whereas his surveys embraced nearly all the rock-cut temples of India then known, and all his journeys were undertaken for the sole purpose of antiquarian research"; he was thus enabled to devote his whole and undivided attention to the subject, and all his notes and sketches were made with only one object in view—that of ascertaining the age and object of these hitherto mysterious structures. In the course of his arguments, with true scientific instinct, he tried to avoid, as much as possible, all hypothetical matter, and to state merely what bore directly on the subject under consideration, and that as succinctly as possible. His conclusions were arrived at almost entirely from a critical survey of the whole series, and a careful comparison of one cave with another, and with different structural buildings in the vicinity, the dates of which are at least approximately known. And he held that though inscriptions by themselves will not fix the dates of monuments—for in many cases they belong to a long subsequent period, and cannot in all cases be relied on—yet they form a most essential part of the enquiry. And the aim of his work was not so much to fix the exact date of any monument as to assign its place in a chronometric scale, to which approximate dates might be attached tentatively—to be rectified afterwards, if necessary, by the discoveries of epigraphists or otherwise.

One result of this paper was that the Royal Asiatic Society moved the Court of Directors to employ an artist to copy the wonderful frescoes in the Ajanṭâ Caves. This was at once generously sanctioned, and Major Robert Gill spent about twelve years in making copies which were afterwards most unfortunately destroyed by fire at Sydenham Crystal Palace in December 1866.

The Court of Directors also acknowledged the duty imposed on the Government of India to preserve the relics of ancient art and architecture, and sent out orders to each Presidency to adopt measures to keep them from further decay. They further proposed to institute an Archæological Commission for investigating the architectural character and age of the several monuments.

To further this scheme, the Bombay Government entrusted the work to Dr. Jas. Bird, an antiquary of the Maurice and Stukeley type, who first formed theories more wonderful than natural, and then tried to make both facts and inscriptions support them. He probably could not draw himself, and he did not control his draftsmen, nor select the objects most deserving of delineation. From the Ajanṭâ frescoes he

selected only individual heads and figures, rather than the groups which give meaning to them. Having the patronage of the then Governor of Bombay, he was supported with means, and destroyed the Kanheri Stûpas by hasty and unscientific excavations, losing for science all that might have been learnt from them, while from the so-called "Zodiac" in Cave XVII at Ajanṭâ he removed numbers of the small painted figures.

But in July 1848, the Bombay Cave-Temple Commission was appointed, with the late Rev. Dr. John Wilson as its president. The fruits of their labour were the preparation of two Memoirs by Dr. Wilson in 1850 and 1852 respecting the Cave Temples in Western India. The Commission ceased to exist about 1861, but it had stirred up district officers and others to call attention to local antiquities, and among these the contributions of Sir Bartle Frere, Captain Meadows Taylor, Dr. E. Impey, Dr. Bradley, the Messrs. West and others contained valuable additinos to our knowledge.

In 1848 Mr. Fergusson made a second contribution to this study in his *Picturesque Illustrations of Ancient Architecture in Hindustan*—a folio volume with 23 plates from his own drawings and remarkable for their accuracy of detail. The principles that had now been worked out in his mind he applied with confidence, and he expressed in the preface his conviction that "had he begun his journeys with the knowledge he now possessed, he felt he should not leave much, either as to age or style of the buildings, to be settled by subsequent researches, and that future explorers in this field would thank him for his outline of the subject." He had thus shewn that the evolution of Indian and of all other art follows distinct laws. And, as he remarked, 'nowhere are the styles of architecture so various as in India, and nowhere are the changes so rapid, or follow laws of so fixed a nature. It is consequently easy to separate the various styles into well-defined groups, with easily recognised peculiarities, and to trace sequences of development in themselves quite certain, which, when a date can be affixed to one of the series, render the entire chronology certain and intelligible.'

He also read before the Royal Institute of British Architects a paper on "Ancient Buddhist Architecture in India," which was afterwards followed by others, read to the same Society. In 1855 appeared his "Illustrated Handbook of Architecture," describing the different styles prevailing in all ages and countries. This passed through a second and enlarged edition in 1859 and was further elaborated in his next work—the "History of Architecture in all Countries from the Earliest Times to the Present Day."

Whilst he was engaged on this last, the prospects of progress in our acquaintance with Indian architecture suddenly looked promising. Sir Bartle Frere, then Governor of Bombay, formed an influential Committee of Architectural Antiquities of Western India with a view to publishing photographic and other materials in a comprehensive series of about six volumes, the expenses of which were to be met by certain native gentlemen, who, for the honour of their country and the greater diffusion of an acquaintance with it, volunteered each to take one volume under his patronage and contribute £1,000 towards its publication. The general editing of the first volumes was entrusted to Mr. (now Sir) Theodore C. Hope, and Mr. Fergusson was most wisely asked to write the architectural introductions, which he freely undertook to do and performed for the three volumes that were published, *viz.*—(1) on Ahmedabad, (2) Bîjápur, and (3) Mysore and Dhârwar. No more were published, and, except for the first and second volumes, the materials unfortunately embraced no new drawings,—without which much of the value of the photographs for scientific study was lost.

His attention was next directed to the sculptured slabs brought by Sir Walter Elliot and Colonel Mackenzie from the Amarâvatî Stûpa, and after reading a paper on them to the Royal Asiatic Society he was led to the preparation and publication, under the enlightened patronage of the late Lord Iddesleigh (then Sir Stafford Northcote), Secretary of State for India, of a volume entitled "Tree and Serpent Worship, or Illustrations of Mythology and Art in India from the Sculptures of the Buddhist topes at Sanchi and Amarâvatî" (1868). In this volume he was fortunately enabled to make public a most important collection of illustrations of Bauddha mythology and art. In addition to the sculptures from Amarâvatî, he found among the Mackenzie MSS. a volume of drawings taken from sculptures, now lost, and he used about half of them, together with a large series from Sânchi, drawn by Colonel Maisey. This important work helped greatly to create an interest in ancient Indian art, and was issued in a second and improved edition in 1873, which was also soon exhausted. The information on Amarâvatî has since been considerably extended in my volume on "The Amarâvatî and Jaggayyapeṭa Stûpas" (1887), in which was engrossed the remainder of Colonel Mackenzie's drawings.

In again extending his "History of Architecture" in a new edition, Mr. Fergusson devoted the third volume of it exclusively to "Indian and Eastern Architecture" (1876), which in fact forms a separate work that has ever since held a position of pre-eminent importance in the estimation of Oriental archæologists. When he began to write on Indian Architecture in 1845, no one knew anything definite about

it, but now, to quote his own words, "the date of every building and every cave in India can be determined with almost absolute certainty to within fifty, or at the outside one hundred, years; the sequence is everywhere certain, and all can be referred to the race and religion that practised that particular style." It is now held that in Indian as in classical archæology "the lithic mode of investigation is not only capable of supplementing to a great extent the deficiencies of the graphic method, and of yielding new and useful results, but that the information obtained by its means"— and in India at least—is much more trustworthy than anything that can be elaborated from the books of that early age. It had not occurred to scholars before Fergusson's time that there was either history or ethnography built into the architectural remains of antiquity. While they were seeking in the Purâṇas and Kâvyas, he was trying to read the history which the Hindûs had recorded in stone, in characters as clear as, and far more indelible than, those written in ink. To him it appeared that to neglect an ancient nation's monuments is to throw away one-half, and generally the most valuable half, in some cases the whole, of the evidence bearing upon the subject. And in such a country as Indiá, the chisels of her sculptors are immeasurably more to be trusted than the pens of her authors. His aim in the treatment of the history of Indian Architecture he has stated in these words:—"My endeavour from the first has been to present a distinct view of the general principles which have governed the historical development of Indian Architecture, and my hope is that those who pursue the subject beyond the pages of the present work, will find that the principles I have enunciated will reduce to order the multifarious details, and that the details will confirm the principles. Though the vast amount of fresh knowledge which has gone on accumulating since I commenced my investigations has enabled me to correct, modify and enlarge my views yet the classification I adopted, and the historical sequences I pointed out thirty years since, have, in their essential outlines, been confirmed and will, I trust, continue to stand good." This confidence is confirmed, and must be so, by investigators having the necessary scientific training in architectural archæology rightly to apply these principles. But the qualifications to apply successfully the principles of this, or of any science, are not to be acquired without long and patient study and extensive experience; they are, however, now universally accepted by all scholars in dealing with classical and national antiquities. He had successfully applied to Indian architecture the same principles of archæological science, which are universally adopted, in every country in Europe. Since the publication of Rickman's "Attempt to discriminate Styles, &c.," in 1817, style has been allowed to supersede all other evidence for the age of any building,

not only in Mediæval, but in Byzantine, Classical, and, in fact, all other true styles. He thus worked out for the student the outlines of Indian monumental archæology, and these outlines may be filled up by future workers as the means of doing so become available, and these can only be acquired by an extended and scientific survey, which the Government has since been trying to carry out.

An able architectural critic justly remarked of Mr. Fergusson that "by his individual efforts, without a jot of encouragement from the Government, with no existing criteria which could enable him to form a judgment of the age or style of the buildings he was studying, he classified them and laid the solid foundations of an architectural chronology for Hindustan. . . . Until Fergusson began to systematize the result of his laborious examinations and to publish his studies of the historical monuments in stone and marble scattered over the face of India, the mass of these and their mutual affinities were like a sealed book to the learning and intelligence of the world. It is not too much to assert that the present votaries of Indian research owe to him the means of checking historical tradition by easy reference to the substantial records with which, principally through his works, they are now familiar."

About fifty years ago the French translation from Chinese of the life and travels of Hiuen Thsiang, added to the interest previously created by the version of Fah-hian's travels, imported a new element into Indian researches, and gave a great impulse to the study of the early history and geography of the country. M. Vivien de St. Martin first traced out the route of Hiuen Thsîang with scholarly ability and care, and was followed by Professor H. H. Wilson, Colonel Yule, General Cunningham and Mr. Fergusson.

Towards the end of 1861 Colonel (afterwards General Sir Alexander) Cunningham laid before Lord Canning a proposal for the investigation of ancient remains in Upper India. He represented that it would be possible to make a careful examination of all the more important places, which he had noted in his memorandum, during two cold seasons—the first to be devoted to Gayâ and Râjăgṛiha, and of all the remains in Tirhut to the eastward of Banâras and Gorakhpur, and the second to all places to the westwards of Banâras. In answer to this Lord Canning minuted, 22nd January 1862, that "it will not be to our credit, as an enlightened ruling power, if we continue to allow such fields of investigation, as the remains of the old Buddhist capital of Bihar, the vast ruins of Kanauj, the plains round Delhi, studded with ruins more thickly than even the Campagna at Rome, and many others, to remain without more examination than they have hitherto received. Everything that has hitherto been done in this way has

been done by private persons, imperfectly and without system. It is impossible not to feel that there are European Governments which, if they had held our rule in India, would not have allowed this to be said." The proposal was sanctioned, and it was laid down that "the aim of this survey was to be an accurate description—illustrated by plans, measurements, drawings or photographs, and by copies of inscriptions—of such remains as most deserve notice, with the history of them so far as may be traceable, and a record of the traditions that are retained regarding them."

General Cunningham continued this survey for four consecutive years, and his reports were printed by Government, but without the plans, drawings and photographs, which ought to have been a prominent feature of them; and it was not till they were re-printed in 1871 that forty small maps and fifty-nine other drawings were added. This survey was broken up by Lord Lawrence in 1866.

Mr. Fergusson and others continued to urge on Government the desirability of carrying out the proposals of 1844 and 1847, to secure more artistic delineations of the monuments; and, in August 1867, the Government of India forwarded a circular to the local Governments expressing their sense of the desirability of conserving ancient architectural structures or their remains and other works of art in India, and of organising a system for delineating and photographing them. Lists were called for of all remains and works of art in the different provinces; and it was proposed to encourage amateurs to take photographs of them. Further, in 1868, Mr. Fergusson induced the Society of Arts to memorialise the Indian Government to obtain casts and drawings from different monuments in India. A sum of Rs. 13,000 per annum was sanctioned for each of four provincial areas—Bengal, Bombay, Madras, and the Upper Provinces—for the employment of parties to make accurate drawings, with descriptions and photographs of important monuments, and to take plaster casts of details.* The work was begun, however, in a way not very well

* Resolution of Government of India, Home Department No. 14—931, of 24th February 1868. This was supported by a convention entered into during the Paris Exhibition for promoting universally Reproductions of Works of Art for the benefit of Museums of all countries, signed by H.R.H. the Prince of Wales; H.R H. the Duke of Edinburgh; H.I.H. Frederick-William, Crown-Prince of Prussia; Prince Oscar of Sweden and Norway; the Csarewich Nicolas; Duc de Leuchtenberg; Prince Humbert of Italy; Duke Amadeus of Aosta; Archdukes Charles Louis and Rainer of Austria; Frederick, Crown-Prince of Denmark; and others. On 12th March 1868, H.R.H. the Prince of Wales communicated this convention to the Duke of Marlborough, Lord President of the Council of Education, who replied, 14th March, pledging the co-operation of the Science and Art Department. This of course related to the Art of all nations, including Hindu; and out of this resulted the casts of the Sânchi Gateway taken by Major Cole in 1870. The northern gateway, as the more perfect and interesting, was intended to be taken, but Major Cole preferred to make casts of the eastern one. They are now to be seen in the South Kensington, Edinburgh, and Dublin National Museums, and in those of Paris, Berlin, &c.

advised. It was suggested that the local Governments might proceed, in the first instance, experimentally by allowing the heads of the Schools of Art to carry out the work,—thus ignoring the necessity of any special archæological or architectural knowledge in the direction of the surveys.

The Bengal Government sent a party of moulders to Orissa during the cold season of 1868-69, accompanied by Bâbu Râjendralâl Mitra. They took a series of casts at Bhuvaneśvara, but apparently without discrimination or intelligible purpose. Lithographs from them were published in a very large folio report as "The Antiquities of Orissa" by the Bâbu, but without such plans, elevations and diagrams as were essential to show whether the casts represented architectural features employed to express or accentuate construction, or merely ornamental details relieving any plain surface on a temple by enriching the outline.

On the representation of Mr. Fergusson, who offered himself to pay the expenses, a second expedition in 1871-72, under Mr. H. H. Locke, was devoted to the survey of the Khandagiri caves, and to it is due the only plans and really valuable casts made; they are represented in the second Orissa volume. But much was left undone, and the letter-press is disappointing and often incorrect and misleading. The Orissa antiquities have yet to be scientifically surveyed.*

The Madras Government went to great expense to obtain photographs, engaging Captain Lyon for that duty; but the arrangements were without specific control and unsatisfactory, and the result was of little scientific value. Photographs without plans and drawings, just as plans without views or elevations, are insufficient for architectural study.

The Bombay party from the School of Art went to Amaranâth temple near Kalyân, and, besides casts of sculptures from the walls and a series of photographs, took a very complete set of careful drawings. No descriptive letter-press was prepared and the drawings were not officially published.†

In the Upper or United Provinces, Sir John Strachey, then Lieutenant-Governor, organised an Archæological Department to carry out the objects proposed, of making drawings, photographs and casts, and to undertake the preservation of monuments. This was entrusted to officers of the Public Works Department. Major Cole was appointed to conduct it, who published "Illustrations of Ancient Buildings in Kashmir" (London 1869)—the text entirely based on General Cunningham's paper on Kaśmîr architecture and showing no original

* See Proc. Bengal Government No. 1296, 16th May 1902, and Notes of Bâbu Manmohan Chakravarti, M.A., dated 19th August 1902.

† Copies of seven out of the sixteen sheets were afterwards published in the Indian Antiquary, Vol. III., pp. 316—320.

knowledge of archaic architecture; "Illustrations of Buildings near Muttra and Agra;" and in 1872, the Architecture of Ancient Delhi, illustrated by 25 photographs and one plan to a small scale of the buildings round the Qutb Minâr.

Early in 1869, Mr. Fergusson submitted to the India Office definite proposals as to the ancient monuments requiring representation by drawings, photographs and casts, and as to their conservation; and Colonel Meadows Taylor and General Cunningham were also asked for, and submitted, memoranda on Pre-historic and Architectural Remains. These papers were printed, in June 1869, by Dr. Forbes Watson in his "Report on the Illustration of the Archaic Architecture of India, with Appendices." This paper supplied a good idea of the large amount of work that remained to be done before the archæological survey of India could approach completion.

The scheme of 1868 had proved a failure; but as it became evident that the importance of the subject was appreciated, the Government of India was led to resolve, in 1870, that a central establishment should be formed to collect the results of former researches, to train a school of archæologists capable of conducting local enquiries, and to direct, assist and systematize the various efforts and enquiries made by local bodies and private individuals, as well as by the Government. The direction of this establishment was entrusted to General Cunningham, who returned to India in 1870. Here was, now at length, the golden opportunity of Indian archæology: Government was in earnest; the allowances made were liberal, and native draftsmen could easily be trained to architectural delineation of the utmost accuracy of details, while European scholars only wanted satisfactory impressions from which to work out all the epigraphical documents that could be submitted to them. A new scientific departure was now practicable in Indian, such as had then taken place in Classical Archæology. The attention of the survey, however, was concentrated on the ancient sites mentioned by the Buddhist pilgrims and others, and on numismatics and a little epigraphy,—rather than on architectural monuments and their teachings, and the assistants employed were, unfortunately, but poorly educated for their responsibilities.[9]

When General Cunningham returned to India, he had then almost completed his fifty-seventh year—an age when most men are obliged to leave active service. The appointment was only for five years, but he continued to hold it for fifteen, and retired in 1885 in his seventy-second year. He formed no central establishment to collect results, but toured much himself and sent his assistants out to survey different places—all over India North of the Narmadâ and in the Central Prov-

[9] See Fergusson's Archæology in India, pp. 76, 77.

inces, without reference apparently to styles or age. In the twenty-two volumes of his reports, including re-prints of those prepared in 1862—65, there are no proper monographs upon individual groups of remains or styles of art. They are essentially the reports of unconnected tours—half of them were the work of his assistants, were printed without revision, and are not scientific or reliable.*

Previous to this I had represented to the Bombay Branch Asiatic Society the desirability of resuscitating its Journal by more frequent publication, pointing out how ample material might be obtained for four or six issues yearly, and that the Government grant was really intended for publication and not for general revenue. This meeting with opposition, I stated that to occupy the field I had described there was room and want of a Journal, and, if the Society declined to supply the want, I was disposed to try to do so otherwise. Soon after, the "Indian Antiquary" was projected, and in January 1872 I started that monthly in the service of Indian archæology. It was intended to prove a means of creating and sustaining a wider interest in every field of antiquarian research. Much attention was given to epigraphy—first in securing and publishing real mechanical facsimiles, and then in obtaining the services of the ablest scholars in this branch to read and translate them.

With a modest subsidy from the Secretary of State in the form of a subscription for a number of copies, I was able during the first thirteen years, when I conducted the Journal, to issue 260 facsimile plates—handing over twenty-three more to be published in 1885, when, owing to threatened loss of sight, I had to give it over to Dr. Fleet and Sir R. C. Temple. It has served its purpose well, both directly and indirectly—stirring up Asiatic Societies to follow its example, and by drawing the attention of the best of living scholars to the wealth of the invaluable historical materials to be derived from the copper and lithic epigraphs of ancient days. The additions to our knowledge of Indian history thus acquired can best be estimated by examination of the pages of C. M. Duff's "Chronology of India." The facsimiles of inscriptions, too, combined with the elucidations of the late Dr. Bhagwanlal Indraji and Professor Bühler, have given vitality and importance to the branch of palæography as an aid to historical research.

* In his written evidence before the Public Service Commission (1887) Mr. F. S. Growse, M.A., C.I.E., states with regard to these:—The unrevised lucubrations of General Cunningham's assistants "are a tissue of trivial narrative and the crudest theories, in which, to borrow the language of a French savant, le manque de critique et de sens historique dépasse en effet toutes les limites permises." Proc. Sub-Committee, Public Service Commission, Scientific Departments, p. 52. "We trust that all future Reports issued by the Archæological Department of the Government of India will be free from the defects which mar the usefulness and impair the authority of Sir Alexander Cunningham's Series." Quarterly Review, July, 1889.

The late Duke of Argyll, then Secretary of State for India, in October 1871 made proposals with a view to a complete survey of the Cave Temples of Western India; but they lay aside till July 1873, when the Government of Bombay submitted a scheme for the survey of the archæological remains on that side of India, suggesting my employment to conduct the survey. The Government of India restricted the expenditure to such an amount as to allow only 3,000 rupees per annum for establishment, travelling, etc. This greatly hampered operations. Three years previously I had been asked to report on the returns to the Government resolution calling for lists of the Monuments and of the means adopted to preserve them, with a view to an archæological survey. My reply was contained in a Memorandum on the Survey of Architectural and other Archæological Remains, with lists of those in the Bombay Presidency, Sindh, Berar, Central Provinces, and Haidarabad.*

The work of this survey was begun in January 1874, and in October of the same year the first report was published containing 56 plates, illustrating pretty fully the architecture, sculpture, and epigraphy of the Cave Temples and structural remains at Bâdâmi, Aihole, Paṭṭadakal and other places in the Belgaum and Bijapur districts. In this report I was able to fix the date of the Bâdâmi Caves by means of the only dated inscription found in any cave in India bearing on the question, thereby supplying a fixed point such as we had not previously from which to reason in respect of other series and corroborating the date I had previously ascribed to the Elephanta Cave in a monograph published in 1871.†

The Archæological Survey in Western India during the season of 1874-75 was occupied principally in Kâṭhiâwâḍ and Kachh, embracing the first complete series of facsimiles of the Aśoka and Rudradâman inscriptions at Junâgaḍh, and a fairly complete survey of the Jaina Temples on Mount Girnâr, of the rock excavations in different parts of Kâṭhiâwâd, and of such ancient sites as Ghumli, Gop, Bhadreśvara, Dabhoi, etc., the results being published in 1876.

The third season was devoted to the Bidar and Aurangâbâd districts of the Haidarâbâd territory, being quite new ground, and though information was then very imperfect and the time too limited to seek out unmentioned remains, much material was collected and a careful survey made of cave temples at Dharasimha, Aurangâbâd and other places.

Some seasons were now required for a somewhat complete survey of the more important groups of Rock Temples at Elura, Ajantâ, Karlê,

* Printed by order of Government, 20th August 1870, 52 pp. folio.

† Fergusson, Indian and Eastern Architecture, p. 439.

Bhâjâ, Junnar, Kaṇheri, etc., and the results were embodied in a separate illustrated volume on the Cave Temples of India (1879), in the preparation of which Mr. Fergusson joined me, and wrote about a third part, treating of the Rock Excavations of Northern and Eastern India, in which he added considerably to our knowledge of these ancient remains.

But numerous as were the illustrations of this work, it was not practicable to include much of the materials relating to the Caves of Western India with the important collection of inscriptions. This extra material was therefore published in two quarto volumes (1883) with 111 plates and 43 woodcuts, the inscriptions being translated and elucidated by Professor Bühler.

The next advance was the initiation of the Survey of Southern India. It was pointed out that, with few exceptions, the antiquities of Southern India, though equally important, have not attracted the same attention that had been bestowed by the Asiatic Societies of Bengal and Bombay on the archæology of Hindustan before the organisation of the Surveys. The difficulties attending an Archæological Survey in the South, it was represented, are greater than those that operate in the North and West, on account of the greater variety of characters used in the inscriptions and ancient documents, which are not easy to decipher, and on account of the mixture of Sanskrit with forms of local vernaculars now little understood. Delays, however, arose from various sources, and it was not till Mr. Adams succeeded the Duke of Buckingham as Governor of Madras that it was decided to organize the survey at once and place it under my charge, and Mr. R. Sewell was engaged for the preliminary task of preparing lists of the archæological remains of the Southern Presidency. Before these lists were far advanced, the Governor died, and matters were again delayed till the arrival of Sir M. E. Grant Duff as his successor, when Madras was added to my charge in November 1881. The only assistance available for the first season was that of three or four School of Art students, without experience of field work and requiring constant supervision.

The whole area of the Amarâvati Stûpa had then recently been cleared out by a spasmodic order of Government, and all traces that may have remained of foundations or walls were eradicated. While surveying what still remained, further exploratory excavations led to the discovery of about 90 additional sculptures. The best of the marbles were then packed and sent to the Government Museum at Madras, where they were arranged by the curator and abundantly cemented together in a way that illustrated how the best intentions without adequate knowledge may produce deplorable results. During the same season the very early stûpa at Jaggayyapeṭa was also excavated, and

surveyed, and impressions taken of the Aśoka edicts at Dhauli and Jaugada.

Mr. Henry Cousens had joined the Western India Survey during the third season's operations, and was now able to take charge of the staff in my absence; and, in November 1882, the assistance of Mr. A. Rea, a young architect, was engaged for the Madras circle, and the season was spent with him and the staff in the Madura district and in making a very complete survey of the great temple at Rameśvaram. With a competent European surveyor in each circle it was now possible to supervise both.

In Western India the survey of the ancient city of Dabhoi, in H. H. the Gaikwaḍ's territory, was carried out by Mr. Cousens and published by His Highness in a large illustrated folio volume in 1888. Then the Muhammadan Architecture of Ahmadàbâd and the surrounding districts of Gujarât was undertaken so as to form materials for a full monograph on the whole style which now occupies three of the Survey volumes.

For H. H. the Gaikwaḍ also a survey was made of the monuments in Northern Gujarât, and issued, with 112 plates and other illustrations, two years ago.

A list of the monumental antiquities in Bombay Presidency had long been a desideratum: information sought for was often vague and unsatisfactory. I had begun the compilation in 1879, and after many delays, waiting for information, it was completed in 1885, including also Sindh, Kâṭhiâwàḍ, Kachh and Berar. A revised edition was since prepared by Mr. Cousens in 1897, with separate lists for the Central Provinces and Berar.

The question of preservation of ancient remains is an essential part of archæology; and necessarily came under notice in connection with the organization of the surveys. In July, 1873 an influential meeting of noblemen and gentlemen interested in the history and antiquities of India was held in London, and a memorial was prepared and presented to the Duke of Argyll, then Secretary of State for India, suggesting the adoption of measures to secure the efficient protection of historical monuments in India, and their permanent record. It was represented that "many of these monuments are such as, were they in Europe, would be cherished with the utmost care, and form the pride of the city, if not of the country which possessed them; nor could it be considered creditable to British rule in India that no adequate effort should be made to arrest the destruction of the ancient monuments of the art of a country of which England has become possessed by conquest. Every year the task becomes more difficult and costly, and the buildings

which, by the judicious application of a few loads of cement, might be preserved for centuries, would, in half-a-dozen years more, be only maintainable by a very large expenditure." This memorial further suggested the employment of officers charged with the conservancy of historical monuments, whose business it would be not only to search out and record the monuments most worthy of attention, but also be responsible for the apportionment and expenditure of any grant made by Government.*

The grants really required need not have been large, if only economically and efficiently applied. Government machinery, however, works slowly, and it was not till 1880 that the prayer of the memorialists was practically complied with. Many monuments had, indeed, been repaired by local engineers at Government expense, occasionally with but little regard to architectural principles, and to the great detriment of certain of them. As an experiment, Major H. H. Cole, R.E., was appointed in 1881 for a period of three years. He employed his staff also on survey work, and to publish a selection of 42 drawings made in his office with about sixty photographs, he obtained sanction for an expenditure of some Rs. 5,000, but soon ran up a bill of over £1,600 for what was, at best, a collection of pretty pictures. The curatorship consequently ceased in January 1884; and the provincial Governments were instructed to refer all matters of conservation to the heads of the two surveys. In Bombay this was strictly carried out, and much good work was done at Ahmadâbâd and elsewhere.

The question of Conservation requires judgment and knowledge. There is no small danger in treating it as equivalent to restoration; for it is almost impossible to *restore* even a perforated stone window where the pattern has been lost. To copy from another building of earlier or later date or even of coeval age is substituting one thing for another; for the stone masons of the fifteenth or sixteenth centuries were never driven to copying—they could always devise something new and as beautiful as aught that had previously been produced. To repair by any copying is as mistaken as to place crescents on the minars of Indian mosques of the fifteenth century. The best conservation is that which attempts least restoration or alteration, but which preserves most effectively what has come down to our times: anything more than this must be deplored. Where repairs must be made to preserve a monument, the cause of archæology is best served when these are not

* This was signed by about forty noblemen and gentlemen, among whom were—the Archbishop of York, Lords Salisbury, Lothian, Ripon, Derby, Stanhope, Carnarvon, Stanley, Russell, Lawrence, Napier and Ettrick, and Halifax, Sir H. Bartle Frere, Field Marshal Sir W. M. Gomm, Sir Arthur Gordon, Sir Gilbert Scott, also Mr. Froude, Sir Stafford Northcote, etc., etc. Lord Napier and Ettrick, Sir A. Gordon, and Mr. Fergusson were appointed to prepare the memorial for signature and to forward it to the Secretary of State.

imitations of the archaic, but marked off as recent works executed only for the purpose of preserving what is old.

I had urged upon Government the great desirability of a scholarly epigraphist being appointed to edit the more important inscriptions that were collected by the surveys. In 1881 I drew up a memorandum on the collection and publication of Indian historical inscriptions, which was circulated among those interested in the subject, and submitted to the Secretary of State. In 1883 Mr. Fleet was appointed for three years as epigraphist under General Cunningham He took up the third of the volumes of the Corpus Inscriptionum as projected by the General, *viz.*, that on the Gupta inscriptions, and his volume, containing 81 inscriptions, with an elaborate and scholarly introduction, was published in 1888. His appointment, however, was abolished in 1886, and towards the end of that year, Dr. E. Hultzsch was sent out by the Secretary of State for India to work upon the long neglected, though very numerous and important, inscriptions, chiefly in the Dravidian languages, in Southern India. During his appointment, Dr. Hultzsch made many important additions to our knowledge, especially of the Pallava and Chola dynasties of the South, which have been published in six fasciculi.

In 1885 General Sir Alexander Cunningham proposed that, on his resignation, his pay and allowances should be appropriated among three provincial surveys for Bengal, the North-West Provinces, and Punjâb, and the appointments thus created were at once filled up. The Government of India also decided that I should be consulted and advise on the annual programmes and reports of the surveyors, and be referee upon Conservation; but the impracticability of this scheme was apparent, and I requested to be freed from any connexion with these new surveys,—the men selected to fill the offices not having the necessary qualifications, while the arrangements were unnecessarily expensive. The Marquess of Dufferin, however, thought it better to appoint me Director-General of the Surveys to do the best I found the circumstances would allow. But it is hard to do good work without suitable tools. In Dr. Führer, however, I had one educated officer, and later, having secured the engagement of Mr. Ed. W. Smith as architectural assistant, the survey of the United Provinces only required a little attention to start it. The Sharqi Architecture of Jaunpur was selected to begin with, and was completed in the second season (1887); the report, though it does not include some monuments in the districts which belong to the same style, yet forms a sort of monograph of it. At a later date Mr. Smith took up the survey of Faṭhpur Sikrî, on which he produced his monumental work in four volumes, illustrated by over four hundred carefully drawn plates.

When I left the service in 1889, Government, for a time, entrusted the work very much to the Assistants, who, in three of the circles, did excellent work. In the survey since 1889, Mr. Smith, besides his work on Faṭhpur Sikrî, prepared also a volume on Moghul colour decoration at Agra with 103 plates in colour or photogravure, and a portfolio of 52 architectural drawings from Faṭhpur and Sikandra. At the time of his sudden and early death he had doubtless much important material in preparation which it is to be hoped the present Director-General will very soon have published.

In 1888, with Government sanction, the "Epigraphia Indica" was started as supplementary to the "Corpus Inscriptionum Indicarum," originated by General Sir A. Cunningham. It was issued in sixteen parts forming two large volumes; but in 1894, Dr. Haultzsch wished it in his own hands and reduced the size of it, whilst he has since issued five more volumes. This publication has performed a much needed and valuable service in supplying most important materials for Indian History.

For Southern India Mr. A. Rea in 1894 produced a report on the remains of certain Buddhist stûpas in the Krishnâ district with some miscellaneous notes; and in 1896, a report on Chalukyan temples in the Ballâri district, with 114 plates, all printed in blue ink and to scales of the most unusual ratios. Later also a report on Monumental Remains of the Dutch East India Company was issued.

Governments are perhaps too prone to insist on immediate results; whereas reports on Archæology, to be of any real value, cannot be written on the spur of the moment and without careful study of the materials. What is wanted is a careful arrangement and analysis of these materials, with full and accurate descriptions of the monuments, indicating their relations to whatever is already known, their relative chronological positions, and, generally, to supply the information available in a form so far final that both historical and art students can with confidence apply to the reports for the light they throw on their researches. The difficulty must always be to prepare the reports with such scholarship as will do justice to the subject and the materials. A surveyor may be amply qualified for his daily duties, and yet his knowledge may not be adequate to the writing of a well-digested and scientific monograph on the style to which his materials belong. On the other hand, a surveyor may have the equipment for such a task, but be so occupied by his other duties that he cannot find time to study his materials.

Now that the Director-General has charge of the accumulated materials of the different circles for a number of years, it may be expected

he will make adequate arrangements for the proper editing of these; for, however valuable that material is in itself, the public, for which it has been collected, can only be satisfied when it is properly made available.

Besides the direct work of the surveys, there have been other notable contributions. The Ajaṇṭâ wall paintings have already been mentioned: after Major Gill's copies were destroyed at Sydenham in 1866, applications were made to Government to have these remarkable specimens of early native art re-copied. They had much deteriorated during the quarter of a century since Major Gill began his work, and every year portions were being lost. Finally a modest subsidy was provided to employ Mr. John Griffiths, of the Bombay School of Art, and some of his students to re-copy them. This grant was renewed from time to time till 1885, when most of what was recoverable had been copied. But again disaster overtook the work: they had been arranged in the S. Kensington Museum, when a fire from a flue caught hold of them, and out of 334, 175, large and small, were destroyed or damaged, including some of the finest. Mr. Griffiths has since been able to publish a portion of the results in two large volumes containing 159 plates—many in colour—and numerous illustrations in the text. No more notable contribution has been made to the illustration of early Indian art.

Another branch of early art is noted in the very remarkable Buddhist sculptures found on the North-West frontier and Kabul valley: these were long since brought to notice by Masson and others, and their connection with Greek art was evident. Various notices of them had appeared, but no very serious treatment of them until 1889, when M. 'Emile Senart and Mr. Vincent A. Smith simultaneously published essays on the subject.

The Royal Museum at Berlin had acquired through General Cunningham and otherwise an excellent collection of these sculptures, and in 1893, Professor Grünwedel issued a Hand-book containing a careful discussion of the subjects; this was followed by an illuminative essay by M. Foucher, then by a revised edition of Professor Grünwedel's work, and again in 1901 by a translation very much enlarged by additional matter. The additions recently made to the fine collection at Lahore may require further elucidation, but the age, history and other aspects of these remains have been placed on a satisfactory basis.

2.—*Conservation of Ancient Monuments in the Bombay Presidency.*

(By Henry Cousens, M.R.A.S., *Supdt., Archæol. Survey, Bombay Circle.*)

The reasons for undertaking the conservation of ancient monuments need hardly be stated; and yet there are persons who can see no more in these old relics of the past, especially those in a more or less uncared-for and dilapidated state, than so much building material conveniently to hand to be used up to some useful purpose. They would, in their utilitarian zeal, thoughtlessly destroy much valuable evidence, written upon the face of such monuments by the chisel of the sculptor and the mind of the architect—the impress in unmistakeable language, to those who can read it, of the thoughts, feelings, and aspirations of peoples long since passed away, but whose lives, customs, and idiosyncrasies should still be full of human interest to us. They cannot, however, plead ignorance when, not content with the demolition of these old fabrics, whose messages they may not be aware of, they wantonly lay ruthless hands upon the very records themselves, and convert them to such base purposes as road rollers and culvert and pavement slabs.

These old remains, though more or less disjointed fragments, are all parts of the great mosaic of the past history of the country, which are slowly, though surely, being pieced together into one intelligible whole. In these, his works, we have disclosed to us a history of man, of his art, and his culture, and of the developments of his civilization. But apart from the claims of history upon us to conserve these old relics, their architectural merits, and even faults, command our attention and consideration. An inspection of many of the buildings which are at the present moment being run up in the country,

> "Mansions that would disgrace the building taste
> "Of any mason, reptile, bird, or beast,"

must drive home the conviction that we need not be too proud to take a few hints from these old examples; and, instead of being too anxious to dismantle and clear away these undesirable and disagreeable contrasts, we might, in a humbler frame of mind, protect them, if only to have the more leisure to study them. Many of these, which have already survived the ravages of man and the elements, will still

be standing when most of the contractor-built edifices of the present day will have disappeared to make room for others.

As a single instance of the use to the historian of mere unshapely heaps of ruins, I might quote the case of Brahmanâbâd, which has been called the Pompeii of Sind. The late Mr. Bellasis, just fifty years ago, undertook a considerable amount of exploration among the heaps of brick *débris* covering the site, and, upon full consideration of what he saw and found, came to the conclusion that the site was that of the ancient Hindu city of Brahmanâbâd. Major-General M. R. Haig, R.E., some thirty years later, after carefully perusing all the old historical accounts of Sind that he could gather together, decided that Mr. Bellasis was wrong, that the site was that of Mansura, the first Arab capital, and that certain ruins, six miles to the North-East, represented the site of the Hindu city. But the very ruins themselves declare what they are. Unfortunately, neither of these investigators read the full message they conveyed. Unmistakeable evidence upon the spot tells us that the Arabs built Mansura upon the ruins of Brahmanâbâd and that the ruins to the North-East are those of a great Buddhist stupa, doubtless built at the Buddhist colony of Savandi, which General Haig places a short distance to the North of Brahmanâbâd. And yet these extensive ruins which have hardly been dipped into, or made to disclose more than the merest tittle of all the information buried beneath the surface, are, year after year, being harried by the villagers from miles around, who carry away the finer earth to fertilize their fields, as is still done in Egypt, while ruthlessly destroying walls and other indications of the old city and its inhabitants.

There are curious reasons sometimes put forward against the conservation of individual monuments, one of which is that it is out of the beaten track of tourists, and is not likely to be often seen. But we are finding that what, thirty years ago, was practically out of the reach of visitors, is now upon some line of rail, and by its neglected state is provoking their adverse criticism. Bijapur itself was, not so long ago, sixty miles from the nearest railway station. Had it then been more immediately under the public eye, perchance the wholesale conversions and destruction of its citadel walls and old palaces would never have been carried out. A monument should stand upon its own merits in its claim upon us for conservation, and such short-sighted reasons against its conservation ought never to influence us in the least. Still we find that the utilitarian district officer can often put obstruction in our way. As an example, I may mention a case where certain suggestions were made by me, some years ago, for the better care of a row of some beautifully carved old memorial

stones at a town in the South of the Presidency, some of which had fallen and had become broken, while others were on the verge of falling. I merely proposed that they should be set up in a masonry platform where they were, and, also, that certain inscription-slabs built into a small culvert in the same town be taken out and other slabs be put in to re-place them. The District Officer considered it inadvisable to interfere in the first case as the natives would perhaps not like it, and, in the second case, he had no objection to the removal of the slabs, if our office would provide others and bear the cost of putting them in. This officer's hobby was not archæology, it was butterfly.

The lack of interest displayed in these old remains, even the most perfect of them, is deplorable. It can, in some measure, be understood in the case of the stranger from the West, to whom these styles are foreign and *outre*, and who, generally, has not the remotest idea or knowledge of the uses to which they were put, or of the people who raised them. But in the native of India it is inexcusable and almost inexplicable. They have hardly changed from generation to generation as we have in the West. They are the same to-day as they were ages ago. Their shrines to them should be now what they were then, and so they are in a certain sense, where the original use of the building has been continuous ; but, whereas they were then objects to be admired as architectural triumphs, they are now nought but receptacles for their gods. The love of the beautiful is dead. Beautiful lace-like fretwork in stone, master-pieces of the sculptor's skill and patience, has been white-washed, year after year, until now its presence is indicated only by the lumpiness under the many lime coatings. Cattle are tethered to the disengaged limbs of little ornamental figures that adorn the walls, until one after the other is broken off, and the sculptured walls themselves are used as convenient spaces whereon to plaster cowdung cakes to dry. The disused shrine, sparkling with the play of light and shade over its multitudinous carvings, is used as a cattle shed, a barn, or a lumber room for village rubbish ; and when we try to retrieve such from further damage, we are sometimes told by zealous officials that we are interfering with the religious susceptibilities of the people. They are themselves, often, the worst enemies to these old remains. They cut up one of the great columns at Sanchi to make grindstones. They sharpen their knives and agricultural implements upon the stone pillars and gate-posts until they leave their surfaces corrugated all over. They knock down structures, wholesale, for material to build their huts, and sell them to contractors to be used up in some railway bridges or for road metal. And the European has not been far behind in these

works of vandalism. He has converted fine buildings, sacred in the eyes of the people whose forefathers built them, to profane and base uses ; he has decorated them with shameful excrescences ; and he has used portions of inscribed columns, which had escaped the vandal for two thousand years, as road rollers !

Many buildings we find misused by the natives themselves, through ignorance. At the Nasik caves, one, with a colossal seated Buddha in the shrine, has been annexed by the Hindus who see in the image one of their own deities, which they have oiled and blackened and daubed with tinsel paper almost beyond recognition. The dagoba in the great cave at Karle was looked upon as a huge Śiva-linga and accordingly smeared with oil and red paint. The old Buddhist temple at Ter, just across the borders in the Nizam's territories, perhaps the oldest structure in Western India, has been used for centuries as a Vaishnava shrine. Even wooden images of the Virgin and St. Anne, from some old Portuguese church or convent, have been re-christened and used as *devis* in a temple at Chandor.

Passing from the question of the necessity for the protection of ancient monuments, the next is, what have we to conserve ? In the Bombay Presidency—for my remarks are confined to this Province—we have, perhaps, as varied a collection as any in India. Of all the great rock-cut temples of India we possess in Western India about nine-tenths of the whole. The western *ghâts* and adjacent ranges are riddled with them ; they are found on most of the main communications leading up from the Konkan to the Dakhan—Buddhist, Jaina and Hindu. These cave temples are as elaborate in their designs, execution, and decoration as any of the structural temples. They were not, as some have supposed, natural caverns worked up and enlarged. Natural caverns were avoided and shunned as death-traps. A natural cavern meant rotten rock, or it would not be there, and those old monks of old did not care to risk their lives where great masses of rock might descend upon them at any time. No, they selected the hardest and most compact rock through which to drive the galleries of their monasteries and shrines, and we still see rock faces that have been scarped down, preliminary to cave cutting, abandoned because of some slight flaw or crack.

After the caves, with their inscriptions, come the more ancient structural temples, such as we find at Aihole, Pattadakal, and Bâdâmi in the Bijapur District, whose chief characteristics are heavy cyclopean masonry, large, vigorous, and well-cut ornament sparingly applied, with more or less naturalistic statuary. Then follow the great mass of mediæval temples, built between the eighth and the

fourteenth centuries, with their superabundance of fine ornament applied with lavish hand. Vigour of outline and æsthetic economy of ornament is sacrificed to quantity and stereotyped forms in statuary. The ornament, though often exceedingly rich in itself, is applied, not so much in relation to its general effect upon a building, as for its own individual beauty. The building is broken up into thousands of projections, recesses, corners, and minor mouldings, and is fretted from top to bottom ; but all blend into a general honeycombed aspect, when viewed from a little distance.

Practically, all Hindu remains that have come down to us partake of a religious character. The reason for this is, I think, that, although India was split up into innumerable states, each at some time or another at war with its neighbours, the religion, Hinduism, was the same from the Himalayas to Cape Comorin. A prince, who would raze the walls of his enemies' cities and palaces, would respect the shrines of his own gods and the lives of the priests who officiated in them. Domestic architecture, under such uncertain conditions, was probably inexpensive and unsubstantial.

With the later mediæval temples begin the mosques and palaces, tombs, and other miscellaneous buildings of the Muhammedans. As these uncompromising followers of the prophet, full of iconoclastic zeal, first swept down upon the idolatrous shrines of Hinduism, they left the impression of their ruthless hands upon temple and image ; and it was with intolerant hatred that they pulled down the principal temples and re-appropriated their materials to build their mosques, dedicating to the service of Allah what was once in the service of the false gods. Thus we find that these curious composite patchwork buildings, though not always without some peculiar grace of their own in their new arrangement, are to be found as representing the earliest Muhammedan places of worship in many of the principal cities in India. We have a notable example of this in the Arhai-din-ka-jhopra at Ajmer, and here, in our own Presidency, we find them in Ahmad Shâh's mosque at Ahmedâbâd, Ḳarîm-al-din's mosque at Bijapur, the Jami Masjid at Broach, and elsewhere. As the Muhammedans began to settle down in the country as the ruling class, they found that toleration was necessary to the stability of their rule. They then began to quarry and dress material for themselves, and they have left us many a splendid building, of which India should be proud. They were great builders, and the style they introduced into the country, with the graceful arch and lofty dome, struck a note of magnificent contrast with the heavy pillar and lintel, and low dark chambers of the Hindu. Vast numbers of these new works, crowded together in many of the chief centres of Moslem rule, often tell the tale of revenues

wholly or in most part diverted to raise these monuments to the glory of the ruling families.

Coming upon the heels of Muhammedan work are the miscellaneous buildings of Indo-European origin. Amongst these the most numerous, perhaps, are those of the Portuguese. We have the picturesque ruins of their old forts, churches, and convents, roofless and festooned with creepers, at several places along the western coast. There are also the old Dutch, English and Armenian factories and tombs, principally at Surat and Ahmedàbàd. Add to these the old forts, originally Hindu, but in many cases repaired and re-built by the Muhammedans, with which the western *ghâts* bristle, the sites of ancient cities scattered about through the country, and a few odd groups of dolmens.

Such, then, are the classes of monuments that we, in the Western Presidency, are called upon to examine and protect, buildings ranging over a period of some eighteen hundred years, from the first sounds of the chisel in the cliffs above Bhàjà and Karle to the time when the last guns were silenced upon the already crumbling walls of Bassein.

The causes which have led to the necessity for conservation are many. Natural decay is the most persistent and steady, brought about chiefly by the action of the elements. A more rapidly disintegrating agent is man, and it is he whom we have to thank for much wholesale destruction. The Muhammedan, in his religious zeal, dismantled where he needed the material, and disfigured and mutilated where he had not time or opportunity for further mischief. The Englishman, in his utilitarian spirit, made use of these relics where they would serve his purpose rather than see them lying useless. He turned mosques and tombs into Dâk bungalows, bought up scores of marble shrines to build railway bridges and convert into ballast, and but very lately threatened to make a breach in an old, interesting Portuguese fort in order to let the breeze through to a contemptible little Customs *chauki*.

One cannot reiterate these charges too often, nor dwell too long on such acts of vandalism, for the spirit of mischief is still abroad. Another cause of decay is unsuitable materials used in special cases, and it is to this cause we must ascribe the sad state in which we find those beautiful, overhanging cornices and brackets at Bijapur. Bats and bees are another source of trouble, and it is often difficult to deal with them. For the former, where they infest the interior of buildings, I am now experimenting with fine, strong wires, stretched across at intervals, against which, being practically invisible, the bats are likely to come into contact when circling round.

In the selection of a monument for conservation, it is necessary to have some knowledge of other examples of its class, and to judge it

rather in connection with the whole class than with reference to the limited number within a particular locality alone. A district officer, whose attention may not have been previously drawn to these monuments, is apt to overrate an unimportant specimen in his own district in ignorance of what others of its class exist elsewhere, and to recommend conservation measures accordingly. The claims of a monument to conservation rest upon its own merits in comparison with others of its class, upon its prehistoric character, upon its association with some particular epoch of history or some historical person of note, its connection, as an appendage, with some more important building, or upon its containing or sheltering interesting objects, such as statuary or inscriptions. As a rule a building is not conserved on religious grounds ; that is, it is not repaired or restored, simply that it may be used for religious purposes. Many of these old buildings have long since been abandoned, and have ceased to fulfil their original purpose. It is, however, not always easy to judge of the claim of a building to our attention unless we know something of its own history, or at least that of the people who raised it.

Conservation, rather than restoration, is, as a rule, to be aimed at, restoration being resorted to only in so far as is absolutely necessary to the stability of a structure, or where it will remove actual ugliness or disfigurement, due to its mutilated state. In such cases, where skilled workmen cannot be found, it is better to restore in block, avoiding detail badly copied. It is then apparent to anyone coming after that it is restoration and not original work. Where a building is still being put to its original use, and has been so used uninterruptedly, restoration is bound to be carried out, more or less, by its owners in order to keep it in serviceable condition. But if this is not carried out under expert advice, it invariably results in unsatisfactory work.

Conservation consists in preserving a monument as it stands, and includes minor repairs, where necessary to check further disintegration, rendering roofs watertight, removal of trees and other vegetation growing in and damaging the masonry, the acquisition of monuments and land about them, with the fencing in of the same, and the removal of accumulated earth and rubbish. It also includes periodical inspection by the officer charged with its upkeep, and the appointment of custodians where required.

With regard to restoration we are often asked whether there are men now able to faithfully reproduce the old work and whose work would be in sympathetic touch with it. I might quote from the Revd. Dr. Jessopp here where he discourses upon restoration in connection with the old Gothic architecture of our western lands. * " You can't,"

* Nineteenth Century, August, 1888.

he says, "reproduce the carvings you are going to remove—you have no eye for the delicate and simple curves; your chisels are so highly tempered that they are your masters, not your servants: they run away with you when you set to work, and insist on turning out sharply cut cusps, all of the same size, all of them smitten with the blight of sameness, all of them straddling, shallow, sprawling, vulgar, meaningless; melancholy witnesses against you that you have lost touch with the living past. You can make the loveliest drawings of all that is left, but the craftsmen are gone. There's where you fail; you say that this and that ought to be done, and this and that is what I mean; but when you expect your ideas carried out, then you utterly fail."

But in India we cannot say that this is altogether true. It is true of all work executed before the ninth century of our era, such as the great Sanchi gateways, cave sculpture, and the very old temples with their bold and vigorous work. Upon such the individuality of the master hand is impressed in every line. After the ninth century, both architect and sculptor dropped into a thoroughly conventional style of stereotyped forms, which they repeated upon every occasion. Individual taste and liberty were tabooed, and it was only that, which was laid down with hard and fast rules in their architectural treatises, which was repeated and copied down through the succeeding centuries. I am speaking broadly, for there are, here and there, a few rare exceptions to this. Such work it is not so difficult to restore, the difficulty being rather in the restoration of general designs than detail. For this class of Hindu work we still have capable men in Rajputana and Northern Gujarat, lineal descendants of the old families of *salâto* and *sutradhâras*, who still possess their forefathers' manuscripts, and inherit much of their skill and knowledge.

Muhammedan work as we find it in Western India does not present many difficulties. In Gujarat it is the work of Hindu builders working under certain restrictions as to general plans and ornamental detail. The Muhammadans adapted the styles they there found to their own use. In the Dakhan the style seems to have been imported from Northern India.

Though we still find men who can copy the old work very well, they are, to a great extent, ignorant of the broad principles of architecture and, if left to themselves, are very apt to produce incongruous results or pander to the tastes of their patrons. A guiding and directing hand is necessary to ensure their work of repair or restoration being carried out in harmony with the original. The same general style of building will often have local variations with which they are seldom conversant, save with that in the vicinity of their own homes. Repairs carried out by the ordinary mason is, more often than not, disastrous

in the extreme. As an instance there is the fine old sculptured temple of Gondeśvara at Sinnar, twenty miles south of Nasik, the largest and finest tenth-century temple in the Dakhan, whose spire, until recently, was crowned by a small, clumsy, brick and mortar Muhammedan cupola. This unsightly addition surmounted a graceful fretted stone spire, in place of the missing *Amalsara* and *Kalasa* finial. A controlling hand is, therefore, very necessary, and it must be that of one who is familiar and thoroughly at home with the various styles and variations that he is likely to come into contact with. One central controlling hand, or referee, assures uniformity in treatment. Continuity of work is more certain. Experience gained, and expedients used with success in one part of the country are utilized in another, and architecture is treated as a whole. The distribution of funds can be better equalized.

In the actual work of conservation itself there is much initial work which might be undertaken without professional advice. This consists of the acquisition and fencing in of sites to protect monuments from encroachments by villagers and cattle; the collection and stacking on the spot of all fallen carved stones and usable material from the buildings, and the removal of accumulated earth around their bases; the careful eradication of trees and shrubs from the masonry; the temporary propping up of portions in immediate danger of falling, pending detailed restoration; the removal of whitewash from plain surfaces; and the collection of isolated and neglected carved stones and inscription slabs into museums, town halls, and other places of safety, provided always that there is no dissociation from buildings or localities with which the object in question have any connection. In such cases the locality from which the stones are taken should invariably be carefully ascertained and systematically recorded both in catalogues and upon the stones themselves.

The extent or limit to which we should go in conserving or restoring depends chiefly upon the importance of the building itself; but, generally, it should be put into such a condition that no part of it may lend itself to further disintegration or ruin. Some buildings are found in such a state of ruin as to be practically past all repairs, and such can only be preserved by rough and ready methods of supports, and the rendering of all broken masonry surfaces watertight.

As to the methods of conservation I may say that here, in the Bombay Presidency, all such work is carried out by the local officials of the Public Works Department, after the detailed estimates have been approved and passed by the Archæological Department. I regret to say that, in the past, this has not always been satisfactory. The reason for it is not far to seek. Want of personal interest and

supervision on the part of the Executive Officers have led to lamentable blunders being perpetrated by subordinates to whom the work has been relegated. It would seem that Executive Officers considered the patching and mending of old buildings as work unworthy of their personal attention; whereas it is, in most cases, work of a superior class to what they are usually accustomed to, and such as demands skill and knowledge on the part of the actual workmen. An Executive Engineer, who has not made it a study, can hardly be expected to be familiar with these alien styles of architecture, and to take in hand, unaided, restorations and special repairs with success; but he surely might be expected to take sufficient personal interest in these old relics to prevent his subordinates making a mess of them. There have been, and are at the present moment, a few Public Works officers who do take a genuine and active interest in this work, and I need hardly say that it is a very great pleasure, indeed, to work in conjunction with such.

The establishment of a separate department or office, as a branch of, or apart from, the Public Works Department, solely for conservation work, is a suggestion that has been put forward; but there are difficulties in the way of this. In the first place, the officer in charge must have had some architectural training, and must possess a thorough knowledge and familiarity with the styles of architecture within his circle. Such an officer, it need hardly be said, it would be difficult to find. He would need to have an assistant in training to eventually take his place. A further difficulty would be his working establishment. He could hardly draw upon that of the local Executive Engineer, already fully occupied. He would require to have his own, and more than one, establishment. For work to be carried on simultaneously he would require a separate establishment at each of the larger centres of work; and then there are isolated minor works, all over the country, which would require a scattered establishment. He would lack the local experience of the Executive Engineer of the district with regard to available materials and the quality of the same, rates, and the whereabouts of the best workmen, and he would find no little difficulty with the different languages.

Perhaps, after all, the best way, under the circumstances, is that which we are now pursuing, namely, for the Public Works Department to carry out the work under the guidance of the local Archæological Officer. He is responsible, for the character, nature, and extent of the work; the Executive Engineer for the soundness of the same, the material, and the rates.

Our work of conservation hitherto, in the Bombay Presidency, has been chiefly confined to Muhammedan buildings; but there is a great

mass of older Hindu work, and, perhaps, the more interesting because we have yet to learn so much more about it, which has still to be taken in hand. There are the Gujarat and Kathiawad temples of the time of the Solanki and Vâghela rulers of Anhilavâd-Pattan, those of the Yâdavas and Râshṛṭakûṭas of the Dakhan, and the hundreds of profusely decorated Châlukyan shrines in the Kanarese districts, together with a good many of the older and more massive shrines of Dravidian origin found in the same part of the country. With Muhammedan work we can proceed without much difficulty, as it is not so difficult to understand, and the principles of construction of these old buildings differ very little from those of masonry work of the present day. With old Hindu work it is very different. An elaborately designed and sculptured temple will be found raised upon a foundation of great dry boulders spread over the surface of the ground, and only so deep that the platform around the base of the building but just covers them. Upon this rough, knobbly foundation the superstructure of square and dressed blocks, as a rule, very much larger than used in modern buildings, will be raised dry, without any mortar or other cementing material, depending for its stability entirely upon accurate bedding and its own weight, with, occasionally, the addition of iron or wooden clamps. The walls, thus built, will be run up as two shells, the inner and outer surfaces, with the intervening space filled in with dry rubble or boulders, and without through bonding stones. It is for this reason that we not unfrequently see a wall burst asunder by the weight and subsidence of this loose filling in, and sometimes we see the whole of the inner shell of a wall standing entire, and supporting the roof, while the outer shell and rubble filling has entirely disappeared. These buildings, too, are all upon the pillar and lintel principle, more or less foreign to us, and it is due to this exclusive use of beams, together with the heavy superincumbent masses of masonry they are made to support, that much of the damage to these shrines has been caused. Unless the span between pillar and pillar, with reference to the section of the stone beam, is kept well within the limits of safety, the latter cracks, and this the builders were not always careful for.

Monuments are divided by us into three classes. In the first class are included all those which, from their present condition and historical or archæological value, ought to be maintained in permanent good repair. In the second class are placed those which it is only possible or desirable to save from further decay by such minor measures as the eradication of vegetation, the exclusion of water from the walls, and the like. These two classes are further sub-divided into those in the possession of Government, or, in respect of which,

Government must undertake the cost of all measures of conservation and those in the possession of private bodies or individuals. The third class comprises all such monuments as, from their advanced stage of decay or comparative unimportance, it is impossible or unnecessary to preserve.

In this Presidency we have had very little in the way of restoration, most of the work being repairs. The principal centres of work have been Ahmedabad, Bijapur, and Champaner. In Ahmedabad the bulk of the buildings have not suffered much, and are, consequently, in a fair state of repair. The greatest damage done at one time was effected on the occasion of the earthquake of 1819, when the tall, graceful minarets of many of the mosques were thrown down and others rendered unsafe. Among the latter were those of Muhafiz Khan's Mosque, which, in 1882, were taken down and re-built. A few others were also dismantled, but never re-built, and some of their material still lies about the different courtyards. These we hope to restore, as far as it is possible. Amongst those of which the stones have been cleared away and lost, are the *minârs* of the great Jâmi Masjid—a building which has, with them, parted with half its beauty. There is a sketch of the mosque in Forbes' *Oriental Memoirs*, which shows the *minârs* complete. I do not despair of seeing them restored, since I find there is another pair at Ahmedabad, which are practically copies of the original Jâmil Masjid ones, judging from the lower parts of the latter and Forbes' sketch.

One of the more important works carried out of late at Ahmedabad has been the restoration of Sidi Sayyid's Mosque to its original condition. This building, though not very pretentious, either in size or design, contains those two beautiful tracery windows which have always been one of the principal objects of interest and beauty in Western India. It had been converted into a record room for the Mamlatdar, all sorts of hideous additions having been introduced to fit it for that purpose. The whole front had been walled up, unsightly barred windows and doors were put in, and the tracery windows themselves had been walled up from within. Lord Curzon, when he visited the Gujarat capital for the first time, was justly incensed at this work of vandalism, and immediately gave orders for the mosque to be restored. This was carried out, and, naturally, the Muhammedan community were anxious for it to be made over to them. By way of showing how well they were prepared to take care of it, they began to use it as a godown by stowing away inside the great ugly bamboo framework of one of their Muharram *tâbuts!* Lord Curzon interested himself also in the buildings at Shâh 'Âlam

and the Jâmi Masjid, and left instructions for certain conservation work to be carried out at both those places.

At Champaner, the deserted and jungle-covered site of the capital of Mahmud Bigarah, when he removed for a time from Ahmedabad and reduced the almost impregnable fortress of Pavagarh, many of the old mosques and tombs are still standing. They were quite as ornate as those at Ahmedabad, but are now far more ruined, and almost totally uncared for. Repairs to some extent have been carried out here, but, owing to its distance from the nearest headquarters and its being very much buried in the jungle, work has been slow. Until lately, the vandal had a free hand here, and made the most of his opportunities. Material has been dismantled and carried away for building purposes, chiefly in the construction of a temple in the village close by. Between two of my own visits, in 1883 and 1896, amongst other damage, I found that several beautiful *mihrâb* frames had been wrenched from the walls and thrown down, the stones having been marked for carting away. This has been now stopped, and it remains for us, as soon as we can divert funds to it, to do a good deal of miscellaneous restoration here, wherever we have the old material to re-build with.

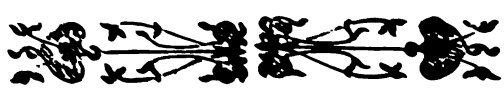
At Bijapur much good work has been done, and very much remains to be done. The principal buildings that have claimed our attention are the Jâmi Masjid, the Ibrâhîm Rauza, the great Gol Gumbaz with its beautiful mosque, the Mehtasi Mahal, and the Janjiri or Malikâ Jahân's mosque. One of the heaviest and most difficult pieces of work hitherto attempted is at present being carried out, *viz.*, the restoration of the great overhanging cornice around the Gol Gumbaz. Its great height from the ground, and the massiveness of its construction, make it a specially difficult piece of work. The cost of the complete restoration of the four sides will not be less than Rs. 50,000, but it will be spread over several years. Other works recently carried out were the restorations to their original condition of the Gol Gumbaz mosque, until lately used as a travellers' bungalow, and the Bukhara Masjid, formerly used as a post office. For years past it had been intended to build a new travellers' bungalow, but want of funds always prevented it, and it was left for Lord Curzon himself to give the definite orders which brought about the much desired end.

The total amount expended in the Bombay Presidency during the past ten years has been just one and-a-quarter lakhs, varying in amounts from Rs. 4,300 in 1897-98 to Rs. 22,500 in 1901-02. This represents money spent by Government, and does not include sums expended, from time to time out of private funds held for the main-

tenance of certain buildings, such as the Jâmi Masjid and Shâh 'Âlam's tomb at Ahmedabad. The Ibrâhîm Rauza at Bijapur has been more or less continuously under repair, Rs. 15,500 having been expended upon it during these ten years. The difference in the general state of the buildings at Ahmedabad and Bijapur is shown by the annual amounts spent on miscellaneous current repairs. At the former place the amount averages about Rs. 240, while at Bijapur it is always well over the thousand.

Although I have given the expenditure for the last ten years only, yet conservation work has been carried on for many years, in a very desultory manner, certainly, in the beginning. Thus in 1856 Rs. 5,000 were spent on the Jâmi Masjid at Thâtâ in Sind; in 1863 Rs. 2,480 were allotted for work at Bijapur; in 1867 over Rs. 10,000 were given for the Ahmedabad buildings; in 1869 another Rs. 3,000 were added for the latter; but it is only within the last fifteen years that any sustained effort has been made.

The proper care and systematic conservation of ancient buildings are now secured by the provisions of the Preservation of Ancient Monuments Act, passed by the Government of India in March of this year. It provides for the careful preservation and upkeep of all classes of monumental remains, whether in private keeping or not; for the acquisition by Government of monuments or other objects of antiquity, wherever necessary for the safe custody of the same; it stops the exportation or importation of moveable objects from or into British India, such as ancient statuary and inscribed tablets, and effectually checks the mischievous hand of the vandal. The Act applies only to British India, but there is still a vast field unprovided for and practically uncared for. Some of the finest and oldest monuments in India are situated in Native States, such as the Elora and Ajanta Caves, the Great Tope at Sanchi, the splendid remains at Chitorgarh, and others. It is absolutely necessary, for their safety, that some such Act should be similarly passed by the various Durbars.



PART IV.

PERSIAN SECTION.

A Glimpse into the Work of the Bombay Branch, Royal Asiatic Society, during the last 100 *years* (*November* 1804 *to* 1904) *from a Parsee point of view.*

Read on 17th January 1905, on the occasion of the celebration of the Centenary of the Society.

By Jivanji Jamshedji Modi, B.A.

Vice-President, Mr. K. R. Cama, in the Chair.

Introduction. The object of this paper is threefold—

(1) To draw the attention of the present generation of students, to the different papers and notes on Parsee subjects, contributed to the journals[1] of the Bombay Branch, Royal Asiatic Society.

(2) To give a brief outline—where convenient—of those papers, or to point out their chief features.

(3) To make a few remarks on those papers, with a view to bring to notice, what has been said by others on the questions treated in those papers.

The three volumes of the Transactions, published in 1819, 1820, and 1823, contain the papers submitted to the Literary Society from 1804, the date of its foundation, to 1821, when it changed its name, and formed itself into a Branch of the Royal Asiatic Society formed in 1821 in London. From 1821 to 1841 we had no journal, as the Bombay Branch sent all the papers, submitted to it, to the principal Society in London, to be published in its journal. From 1841, it started again a journal of its own, and up to now, 21 volumes have been published. In this paper, I refer to the different papers and notes, presented to the Society, under the head of each volume of the journal.

The Parsees owe a debt of gratitude to this Society, for having done something, though not much, in the matter of exciting some interest among its learned members in the matter of their history, religion and literature. In 1812, *i.e.*, about eight years after the founding of this Society, John Malcolm, afterwards Sir John Malcolm, the future historian

[1] Under the name of journals, I include the three volumes of the original Society, "The Literary Society of Bombay," published under the title of "The Transactions of the Literary Society of Bombay." The references in this paper to the volumes of these Transactions are to the second edition, published in 1877, and edited by the late Mr. Vishwanath Narayen Mandlik, one of the then honorary secretaries.

of Persia and the Governor of Bombay (1829-30), in his speech, while proposing a motion, that the founder of the Society, Sir James Mackintosh, be requested to sit for a bust, said, that "a complete account of the Guebers or Parsees" was then "still a desideratum."[1] Though that desideratum has not been supplied as a whole by the Society, yet, it has indirectly done, and has provided some materials to do, something in that line, whereby others outside the Society have done something more.

I, personally, am very greatly indebted to the Society, especially to its excellent library—excellent in its treasures of old books. Were it not for these, I would not have been able to play even half my humble part, as I have done, in the literary line. I look back with pleasure to the hours I have spent in the rooms of this Society, in the company of some of its members, while reading my papers or hearing those of others; and I look back with greater pleasure to the days and months and years that I have passed at home, in the company of its precious treasures.

I will divide my subject into three parts—

I. The first part will treat of those papers, that are on Irânian or Parsee subjects, properly so called.

II. The second part will treat of those papers that refer indirectly or incidentally to Irânian subjects.

III. The third part will present a glimpse of the Proceedings of the Society, from a Parsee point of view.

I

With these few preliminary remarks, I will come to the subject of my paper, and speak, at first, of the different papers on Parsee subjects, in the order, in which they have been published in the Journals.

Transactions, L. S., B., Vol. I, pp. 129-49. *Read, 30th March* 1812.

"Account of the present, compared with the ancient, state of Babylon." By Capt. Edward Frederick.

Babylon has played an important part in the history of Ancient Persia. It is the Bawri (بوری) of the Avesta (Yt. V. (Âbân) 29), Bâbirush of the Cuneiform Inscriptions (Behistun I, par. 6, Journal, Royal A. Society, Vol. X, Part III (1847), p. 197), Bâwir (باوِر) of the Pahlavi treatise of Shatrôihâ-i-Airân (s. 24), and Babel (بابل) of the Persian authors.

The ruins of Babylon, referred to by Capt. Frederick and by other travellers, are the ruins of the city of the times of Nebuchadnezzar and his successors. As Rev. Sayce[2] says, "The Babylon of Nebuchadnezzar and his father, Nabopolassar, must have suffered when taken by Cyrus; but two sieges in the reign of Darius Hystaspes, and one in the reign of Xerxes, brought about the destruction of the defences, while the

[1] Transactions of the Literary Society of Bombay, I, p. 357.

[2] Encyclopædia Britannica, Vol. III, p. 182.

monotheistic rule of Persia allowed the temples to fall into decay. Alexander found the great temple of Bel a shapeless ruin, and the rise of Seleucia in its neighbourhood drew away its population and completed its material decay. The buildings became a quarry, first for Seleucia and then for Ctesiphon, Al Modain, Baghdad, Kufa, Kerbelah, Hillah and other towns, and our only cause for wonder is, that the remains of the great capital of Babylonia are still so extensive".

It is of these remains, that Capt. Frederick speaks, in his paper. He makes at first,[1] a "few general observations relative to the position and ancient state of Babylon."[2] He then[3] states the result of his "own researches during a stay of six days at Hillah," which he had "dedicated to the examination of these ruins"[4] and concludes "with a few general observations upon the whole."[5]

Major Rennel and others had visited these ruins before Capt. Frederick. Major Rennel describes them at some length in his "Geographical System of Herodotus."[6] Kinneir had visited them in 1808, *i.e.*, about four years before the date of our author's visit. But he published his account in 1813, in his "Geographical Memoir of the Persian Empire,"[7] dedicated to Sir John Malcolm. Therein, he refers often to the account of Capt. Frederick.

In his general observations, relating to the position and ancient state of Babylon, Capt. Frederick follows Herodotus (Bk. I, Clio, 178—200), who, however, says nothing about its founder. It "is said to have been founded by Belus, and embellished by Semiramis, the warlike queen of the East, and afterwards to have been particularly repaired, enlarged, and beautified by Nebuchadnezzar."[8] Now this Belus or Bel of Babylonia is identified with the Nimrod of the Christian Bible.[9] According to Malcolm,[10] Nimrod is identified by some with the Zohâk of the Shâhnâmeh, the Azidahâk of the Avesta. This identification receives some support from several Irânian books.

Firstly, the Avesta (Yt. 5, (Abân) 29) connects this Zohâk or Azi-Dahâka with Bawri or Babylon, just as Nimrod, who is identified with Bel or Belus, is connected with Babylon.

Secondly, the Pahlavi Dinkard[11] also connects Zohâk with Babylon, when it says: "One marvel is several matters of evil deceit which Dahâk (Zohâk) had done in Bâpel (Babel or Babylon) through witchcraft."

[1] Transactions, L. S., B, I, pp. 129-31. [2] *Ibid*, p. 132. [3] Transactions, L.S.,B., I, pp. 132-142.
[4] *Ibid*, p. 132. [5] *Ibid*, pp. 142-148. [6] Ed. of 1800, pp. 335-388. [7] "A Geographical Memoir of the Persian Empire," by John MacDonald Kinneir (1813), pp. 269-282.
[8] Transactions, L. S., B., I, p. 130. [9] *Vide* Sir H. Rawlinson's article (Essay X) in Rawlinson's Herodotus (1858) I, p. 596. According to Kinneir there is a pyramid among the ruins of Babylon, which the Arabs call "Nimrood." Kinneir's Persian Empire (1813), p. 275.
[10] Malcolm's History of Persia, Vol. I, p. 12 (Ed. of 1829).
[11] S. B. E. XLVII, Dinkard, p. 67. Bk. VII, ch. IV. 72.

Thirdly, the Pahlavi treatise of Shatrôihâ-i-Airân also connects Zohâk with Babylon, though indirectly and without naming him. It says:[1] "The city of Bâwir (Babylon) was founded in the reign of Jam (shed). He (*i.e.*, the founder of the city) fixed there (the direction of) the planet Mercury. (By the situation of the city or its building) he pointed out magically the seven planets, the twelve constellations and signs of the Zodiac, and the eighth part (of the heavens) towards the sun and other planets." The founder, alluded to in this para., is said to have built the city in the time of Jamshed. Now Zohâk was a contemporary of Jamshed. So, it is he, who is alluded to here. The allusion to the building of the city, pointing to the seven planets, &c., seems to refer to the tower of Babylon, referred to by Herodotus, which is believed to have been built with an eye to astronomical calculations.

Among other Oriental writers, Maçoudi[2] attributes the foundation of Babylon to Nimrod. Ebn Haukal also attributes the foundation of Babylon to Zohâk. He says: "They say that Babel was founded by Zohak Piurasp."[3] Edrisi also says the same thing. He says: "La plus antique ville de l' Irâc (c.a.d. Babil) . . . fut bâtie par Zohak."[4]

Again, just as there is some similarity, between the names of the founder and the city founded by him, in the case of Bel and Babylon, so there is a similarity in the case of Zohâk and Bâwri or Bâwir, the Avesta or the Pahlavi name of Babylon. One of the names of Zohâk is Baêvarasp, of which the Piurasp of Ebn Haukal, above referred to, is a corruption. So Baêvarasp, the Pahlavi name of the founder, resembles a good deal, Bâwri and Bawir, the Avesta and the Pahlavi names of the city.

Now, the ruins of Babylon, which Capt. Frederick describes in this paper, and which Rennel, whom he quotes in his paper, had described before him, are known as the ruins of Hillah or Hilleh. Hillah is a modern town, and as Kinneir says,[5] "it covers a very small portion of the space occupied by the ancient capital of Assyria" The Pahlavi treatise of Shatrôihâ-i-Airân or "The cities of Iran," calls it Hirleh هرلى and says, that it was founded by Narsi of the Ashkânians.[6] According to Kinneir[7], "we learn from St. Jerome that the space within the walls was converted by the Parthian kings into a royal hunting park." This statement of St. Jerome, then, is supported by the Pahlavi treatise.

[1] *Vide* my Aiyâdgâr-i-Zarirân, Shatroihâ-i-Airân and Afdiya va Sahigiya-i-Sistân, p. 75.
[2] Maçoudi par Barbier de Meynard, I. p. 78.
[3] Ousley's Oriental Geography of Ebn Haukal, p. 70.
[4] Géographie d'Edrisi, traduite par Jaubert, II., pp. 160-161.
[5] Kinneir's Persian Empire, p. 269.
[6] *Vide* my Aiyâdgâr-i-Zariran, p. 73. The Pahlavi text of Dastur Jamaspji, p. 20, s. 21.
[7] Persian Empire, p. 27.

Transactions, L. S., B., I., pp. 206—213. *6th July* 1813.

"Observations on two Sepulchral Urns found at Bushire, in Persia." By William Erskine, Esq.

The urns, referred to in this paper, were sent to Mr. Erskine, by Mr. Bruce from Bushire in February 1813. My attention was drawn to this paper, in 1888, when an urn, or rather a box, similar, though not of the same kind, was sent to the Anthropological Society of Bombay, by Mr. Joseph Malcolm of Bushire, through Mr. C. J. Michael of Bombay. I had made an inquiry at the time, and had found, that the urns, referred to by Mr. Erskine, did not exist in the Museum of our Society. The urn, presented to the Anthropological Society of Bombay, has passed into the hands of our Society, when that Society transferred, in 1896, its place of work, and with that, its museum, to the rooms of our Society.

Erskine refers to several classical authors, who speak of the custom of the disposal of the dead among the ancient Persians, and concludes, that these urns were the receptacles of the bones of some ancient Persians. He says : " From these quotations, it seems evident that the Persians in very remote times did not universally follow the mode of sepulture now in use by their descendants, the followers of Zertûsht ; but that, after the birds or dogs had torn part of their bodies, the remains were wrapped up and consigned to the earth."[1] He then concludes by saying : " I am of opinion that the urns in question contained the bones of Persians, whose bodies were deposited in them while the usages described by Herodotus and the commentator on the Desâtêr were in force, before the whole of Persia was reduced to a strict observance of the religion of Zertûsht. In such inquiries, however, there is always considerable uncertainty, particularly when the inquiry relates to a country in which there were so many obscure heresies as there appear to have been in Persia at various eras of its history."[2]

I would refer my readers to a paper by me on the same subject, entitled "A Persian coffin (Astodân) said to be 3,000 years old, sent to the Museum of the Anthropological Society of Bombay by Mr. Malcolm of Bushire."[3] read before the Anthropological Society of Bombay. I have referred there to Mr. Erskine's paper, and treated the subject at some length, on the authority of the Avesta and Pahlavi books. The custom, which led to the construction of these urns, is thus referred to there : "The custom, as described in the Vendidâd, was this, that the body of a dead person was exposed on the top of a hill to the full rays of the sun and to birds of prey. The birds ate away the flesh, but the bones

[1] Transactions L. S., B., I, p. 210.

[2] *Ibid*, p. 212. Such urns were also found at Bussorah and elsewhere. *Vide* Journal of the Anthropological Society, Vol. I, No. 1, p. 12. *Vide*, in the Babylonian and Oriental Record of 1890, Dr. Casartelli's article entitled " Astodans, and the Avestic funeral prescriptions."

[3] Journ. of the Anthropol. Soc. of Bom., Vol. I., No. 7, pp. 426-441, read 29th August 1888.

were preserved uninjured by fastening the dead body. After a certain time, probably a year, the bones, which had by this time become perfectly dry and free from any impurity that could be a source of danger to the health of the living, were collected and placed in a receptacle, specially prepared for the purpose, of stone, mortar or clay, or in case of extreme poverty, of coarse cloth. This receptacle was known as an Astôdân (ઇશ્તોદાન lit: "a keeper of bones" from ઇશ્તો अस्थि L. os., Fr. os., Pers. استخوان bone and دان to keep) *i.e.*, an ossuary."[1]

I happened to see, when in Paris in 1889, some similar urns in the Dieulafoy Collection at the Musée du Louvre. Those urns formed the subject of a paper, which I read at the Institute of Paris, before "L'Académie des Inscriptions et Belles Lettres" at its meeting of 30th October 1889, under the title of "Quelques Observations sur les Ossuaires rapportés de Perse par M. Dieulafoy et deposés au Musée du Louvre."[2]

Almost all the European translators[3] of the Avesta, except Dr. Geiger, have not properly understood the passages of the Vendidâd (Ch. VI, 49—51), where we see an enjoinment for the preservation of the bones. The discovery of these urns has thrown good light upon these passages. Our Bombay scholars have correctly understood the passages. Mr. K. R. Cama, in his articles in his Jartoshti Abhyâs on a similar subject, entitled આગલા ઈરાનીઓ શું કબર કરતા હતા and અસતોદાન,[4] has clearly referred to the custom of Astodâns.

Transactions, L. S., B., II, pp. 63—108. *Read* 30*th September* 1817.

"An Essay on Persian Literature." By Capt. Vans Kennedy.

Looking to the time, when it was written, this paper presents an excellent bird's-eye view of the Persian literature. The editor of the second edition of the Transactions said of it in 1877: "Even now persons desirous of obtaining a general view of Persian literature may peruse it with profit."[5] The latest best book on the subject, which treats of Persian literature up to the time of Firdousi, which one can read with great profit, and which treats the subject very exhaustively, is "A Literary History of Persia, from the earliest times until Firdawsi," by Mr. Edward G. Browne (1902). The

[1] *Ibid*, p. 434. [2] *Vide* the Report of the Academy of "Séance, du 30 Octobre 1889."

[3] I remember having discussed these passages, at some length, with the late Prof. Darmesteter at Paris in 1889, when writing there, the above paper for the Académie. This learned translator has changed, since then, in the second edition of his Vendidad (S. B. E. IV), his translation of the above passages.

[4] જરતોશતી આભોઆસ, અંક ૩ અને ૬. No. III, pp. 128—142. No. VI. pp. 337—341.

For some similar urns of other people, *vide* the Report of the proceedings of the meeting of our Society on 17th November 1853. Journal, B. B., R. A. S Vol. V, p. 398.

[5] Transactions, L. S., B., (1877) II., p. 108.

author promises us a second volume, treating of the authors after Firdousi. The first volume is very interesting from a Parsee point of view, as it treats of the ancient literature of the country. He calls it "the Prolegomena," while the second volume will be, as he says, "The History of Persian Literature within the strict meaning of the term." (Preface p. IX.)

As the author of our paper says: "Few subjects have occasioned a greater variety of opinions than the real merits of Persian literature."[1] Looking to the circumstances of public and private life in a country, ruled by despotic rulers, he considers the literary productions of the country to be tolerably good. He says: "In a country, then, where virtue has been banished from public and private life, where even its semblance is not required, and where the softer feelings are unknown, few can be the noble actions which deserve to be recorded in the pages of the historian, and few the themes which can inspire the strains of the poet."[2]

Capt. Kennedy divides Persian Prose Literature into four parts—1 Historical, 2 Theological including Jurisprudence, 3 Philosophical, and 4 Didactic.

As to the first division, he says, that there are many causes "which must have prevented the composition, in Persia, of any work which could in every respect deserve the name of History."[3] Bigotry, despotism, want of thorough education and such other causes make the histories of the Persians mere annals. Unity is wanting from their historical works, because "from the battle of Nehavend in A.D. 641, to the conquest of Khorasan by Shah Ismail Sefi in A.D. 1510, the whole of Persia was never united under the government of one sovereign."[4] "In attempting, then, to describe these rapid revolutions" resulting from such a state of affairs "no abilities could enable an author to give his subject that unity which is the greatest beauty of history."[5]

As the best historical works, most esteemed in Persia, our author names 1 the Târikh-i-Tabari of Muhammad ben Jurair ul Tabari (A. D. 838-923), 2 the Tarikh Guzideh (1329 A. D.) of Hamdalla Mustufi, 3 the Rouzet-us Safa of Mirkhond (died A. D. 1497), and 4 the Habib-us Seir (A. D. 1527) of Ghaias-ud-deen ben Muhammad Amir Khawend (Mirkhond).

As to the second class of prose works, *viz.*, the theological, Capt. Kennedy refers his readers to the Dissertation and Notes of Sale's Koran and to the Bibliothèque Orientale.[6]

[1] Transactions, L. S., B., II, p. 63. [2] *Ibid*, p. 65. [3] *Ibid*, p. 66. [4] *Ibid*. [5] *Ibid*.

[6] "Bibliothèque Orientale ou Dictionnaire Universel, contenant tout ce qui fait connaître les peuples de l'orient," par M. D'Herbelot.

Of the third class of works, *viz.*, the philosophical, he says, that they are mostly translations of Greek writers, and agrees with M. Langlès' opinion, expressed in his edition of Chardin's "Voyage en Perse" that, in translation, the originals have undergone a great change. However, "the Persians in all their argumentative writings display great clearness and acuteness of judgment, and express themselves with the greatest conciseness and perspicuity."[1]

As to the last class of works, *viz.*, the didactic, our author thinks, that, with all their faults, they "breathe, in general, the noblest and purest sentiments; and their application is illustrated and enforced by the most pleasing and apposite tales."[2]

Then, coming to poetry, he describes the three kinds of Persian poetry, 1 the Gazal, 2 the Kasideh, and 3 the Masnavi, and then gives the names of the poets who have made their names in their respective lines.

Kennedy then says: "If quantity were excellence, the Persians would be the best poets in the universe; for they are all naturally addicted to poetry; and in the *Atishkedah* are enumerated upwards of seven hundred poets, commencing from Rudeki, who died A.D. 1013, and whose verses alone are said to amount to six hundred thousand couplets. But it is to be regretted that, as the rules of criticism and the delicacy of correct taste have never been studied in Persia, the improvement has not equalled the cultivation of its poetry."[3]

I would here draw the attention of my readers to Professor Darmesteter's views on "The origin of poetry."[4] It gives a succinct history of its origin and rise.

From the fact, that we have no Pahlavi poem extant, a question has been asked, at times, whether poetry was composed in Persia before Islâmism. Kennedy gives the following anecdote, related by Doulut Shah, the author of the "Lives of the Poets," to show that it was composed before Islâmism. Kennedy says:—

"From the following circumstance, it will also be known that poetry was composed in Persia before Islamism. One day when Amir Abdulla Taher,[5] the Governor of Khorasan under the Abbassieh Kaliphs, was giving audience, a person laid before him a book, as a rare and valuable present. He asked, 'What book is this?' The man replied, 'It is the story of Wamek and Ozara, a singular and wonderful tale, which was composed by learned men on account of Anushirwan[6] who was

[1] Trans. L. S., B., II., p. 79. [2] *Ibid*, pp. 79-80. [3] *Ibid*, p. 83.

[4] "The Origin of Persian Poetry," translated from the French of Prof. J. Darmesteter by Nasarwânji Frâmji Tamboli, 1888.

[5] He was the first king of the Taberide Dynasty. He was the son of Taher and a general of Khalif Mamoun, the son of Haroun Al-Raschid and the last of the Khalifs.

[6] Chosroes I.

renowned and celebrated in every country for his equity and justice.' The Amir observed : ' We are the readers of the holy Koran, and we read nothing except that sacred volume and the traditions of the prophet, and such accounts as relate to him, and we have therefore no use for these kind of books. They are, besides, the composition of infidels and the productions of worshippers of fire and are therefore to be rejected and contemned by us.' He then ordered the book to be thrown into the water, and issued his command that whatever books could be found in the kingdom which were the composition of the infidels of Persia, should be immediately burnt."[1]

The book, referred to in the anecdote, was a book of poetry in Pahlavi.[2]

Tradition carries the origin of Persian poetry of the Sassanians, to times even older than that of Noshirwân. It attributes to Behram Gour (Behram V.) and his mistress Dil-Ârâm, the composition of poetry to express their mutual love.[3] But, going to times earlier than the Sassanians, we have " the famous Gâthas of the Zend Avesta, rythmical sermons which breathe irreproachable morals and which offer all the poetic interest of a catechism."[4]

Comparing the European divisions of poetry with the Persian divisions, Kennedy, at first, startles us by saying, that, " according to the most received rules of criticism, no epic poem has ever been produced in Persia,"[5] and then, with some hesitation, considers the first two volumes of the Shâh-nâmeh of Firdousi " as strictly epic."[6]

On this point, I would refer my readers to M. Mohl's excellent preface to his " Livre des Rois," for his views on the Shâh-nâmeh as an epic.

Transactions, L. S., B., II, pp. 115—162. 31*st March* 1818.

"Remarks on the chronology of Persian History previous to the Conquest of Persia by Alexander the Great." By Capt. Vans Kennedy.

Even after a lapse of 87 years, this paper presents a very interesting reading, if not for any new facts, at least for the eloquence, with which it pleads for the cause of Persian writers on the history of Persia, and for the words of caution, which it utters, for those, who may be disposed to take the statement of Greek writers as gospel truth in the matter of Persian history. Capt. Kennedy is of opinion, that Greek writers, —and among them Herodotus, also,—were led away, to a certain extent, by their love of their country, by their patriotism, which made them

[1] Transactions, L. S., B., II, p. 77.

[2] " The Origin of Persian Poetry, " translated from the French of Prof. Darmesteter by Mr. N. F. Tamboli (1888), p. 4.

[3] *Ibid*, p. 1. [4] *Ibid.* [5] Transactions, L. S., B., II., p. 105. [6] *Ibid.*

give an exaggerated view of Greek victories and Persian defeats. Again, their statements about the manners and customs of the people were based, not so much on personal knowledge, as on second-hand information.

On the first point, referred to here by Capt. Kennedy, I may draw the attention of my readers to the excellent work of a Parsee author, Mr. Pallonjee Burjorjee Desai, on the history of the Achemenian kings. Therein, the author tries to point out, how Greek accounts are exaggerated to a certain extent. As to the second point, referred to by Captain Kennedy, it is true, that the information acquired by Herodotus is second-hand. So, evidently, there are some mistakes here and there. But, still, a large number of statements are corroborated by other native sources. I would refer my readers to my work in Gujarâti, entitled "કદીમ ઈરાનીઓ, હોરોદોતસ અને સ્ટ્રેબો મુજબ.," *i.e.*, "The Ancient Persians, according to Herodotus and Strabo." Therein, I have tried to show, how far the picture of the ancient Persians, as presented by Herodotus and Strabo, agrees with, or differs from that presented by the Avesta.

Sir William Jones, the learned and ever-to-be remembered founder of the Bengal Asiatic Society, "the prince and the pioneer of the British Orientalists" in India,[1] as Dr. Wilson called him, and others, had tried to compare the Achemenian kings, mentioned by Herodotus and others, with the Kiânian kings, mentioned by Firdousi, Tabari and others.

Capt. Kennedy[2] says, that the kings of the Peshdâdian dynasty, beginning with Kaiumars and ending with Gushtâsp, as described by Firdousi and others, were the same, as the kings of the Medes, beginning with Arbakes and ending with Kuaxares, as described by Ctesias, Herodotus and Xenophon, but that the Kiânian kings of the Persian writers, were not the same, as the Persian kings of the Greek writers, as asserted by Sir William Jones, who said: "For I shall then only doubt that the Khosrou of Ferdusi was the Cyrus of the first Greek historian, and the hero of the oldest political and moral romance, when I doubt that Louis Quatorze and Lewis the Fourteenth were one and the same French king."[3] Some of those, who supported Sir W. Jones, said, "that (in the Shah-namah) we find events, which occurred on the banks of the Euphrates, often transferred to those of the Oxus"[4] and that "taking this view of the life of Kaikhosrou, we may pronounce that the transfer of a scene from the court of Ecbatana to that of the capital of Afrasiab, and the substitution of the latter king for the sovereign of Media, are liberties which it was natural for the poet to take."[5]

[1] Journal, B. R. A. Society, IV, p. 285. [2] Transactions, L. S. B., II, p. 120.
[3] Ibid., p. 88. [4] Ibid. [5] Ibid.

Subsequent researches of scholars have shown, that both Capt. Kennedy and Sir W. Jones were wrong, in their respective identifications—a partial identification by Kennedy and a complete one by Sir W. Jones—of the Persian kings of Firdousi with the Median and Persian kings of the Greek authors. They have also shown, that Firdousi has taken no liberty, such as that attributed to him by Sir W. Jones and his school, *viz.*, that of transferring events from the banks of the Euphrates to those of the Oxus, and of substituting Afrasiâb for the sovereign of Media. The study of the Avesta has shown, that Firdousi has taken no liberty—neither for the field of action nor for the names of the actors—but has faithfully followed older authorities. Again, the Pahlavi treatises of the Kârnâmeh-i-Ardeshir Bâbegân and of the Aiyâdgâr-i-Zarirân, show, that Firdousi had authentic materials for his work.

I will quote here, what I have said on the subject, in the preface to my "Aiyâdgâr-i-Zarirân, &c."

"In the introduction to his Shâh-nâmeh Firdousi says :—'The narrative has been already described. Nothing worth mentioning has been left unsaid. I will narrate what has been already narrated. What I narrate, has been completely narrated. All have travelled over the garden of knowledge. . . . There was a book of ancient times, which contained many episodes. It was scattered in the hands of different Mobads. Every learned man had a fragment of it with him. There was a Pehelwân of the family of the Dehkâns. He was brave, noble, wise, and generous. He was fond of collecting materials for the history of ancient times. So, he called aged Mobads from all parts of the country and collected the historical work. . . . . These great men narrated before him the accounts of the kings and of the events of the world. When that great man heard from them the narratives, he laid on them the foundation of a great book. Thus (the work) became a memoir (Yâdgâr)[1] in the world, and the high and the low praised him.' What Firdousi meant to say in this passage was this : That he had historical materials to work upon for his great work, that he had several memoirs to dwell upon for his great book. This is more than illustrated by the Ayâdgâr-i-Zarirân, which is one of the Pahlavi memoirs (Yâdgâr) referred to by him. We find, that in his Shâh-nâmeh, not only materials and thoughts, but even words in some places are borrowed from the Aiyâdgâr-i-Zarirân."

Firdousi and other Persian historians have been ably defended by Capt. Kennedy in this article. M. Mohl, the French editor and translator of the Shâh-nâmeh, has subsequently more ably defended Firdousi

[1] چنان یادگاري شد اندر جهان بدو آفرین از کهان و مهان

in his learned preface to his "Livre des Rois." His further studies have enabled him, to add the following, in his preface to the fourth volume :—

"Plus on étudiera l'œuvre de Firdousi, plus on se convaincra, je crois, qu' il n'a rien inventé, et qu' il s'est contenté de revêtir de son brillant coloris les traditions qui formaient l' histoire populaire de la Perse." (M. Mohl, IV. Préface, p. ii.)

Now, Capt. Kennedy, in his attempt to defend the authenticity of native Persian writers against Greek writers, touches the question of the ostracism of the Achemenian kings from the Shâh-nâmeh of Firdousi in another way. He ridicules the attempt of Sir W. Jones and others, who in their turn have followed an ancient writer, like Ammianus Marcellinus, to identify the Kiânian kings like Kaikhosru and Gushtâsp with the Achemenian kings like Cyrus[1] and Darius Hystaspes. But then, how to account for the omission of even the names of these Achemenian kings from the Shâh-nâmeh of Firdousi ? He says, that these kings were simply Persian generals in Asia Minor, who invaded Egypt, Greece and Scythia, and that they were intentionally exalted to the dignity of kings by the Greek authors. He says :—

"The only events indeed which are described, and which can be considered of importance sufficient to have rendered them generally remembered, are the invasions of Egypt by Cambysis ; of Scythia by Darius, and of Greece by Xerxes ; for it must be always recollected that such transactions as occurred in Asia Minor, and which are so minutely dwelt upon by Grecian writers, could never have been subjects of the slightest interest to the Persian people. The proper kingdom of Persia was situated to the east of the Euphrates, and appears from every account to have most materially differed in customs, manners, and religion from all the petty nations that were situated to the west of that river. In process of time, these nations, as well as Egypt, were conquered, and became dependencies of the Persian Empire ; but they still remained entirely distinct in population, manners, and religion. No intermixture seems ever to have taken place between them and the Persians, and even the intercourse between the two peoples seems not at any time to have been frequent. These dependencies might, therefore, form honourable and desirable governments for the Persian nobles and for their immediate officers ; but the transactions which occurred in them were not likely to attract the general attention of the Persian nation, and thus to become the theme of history, or the subject of a popular tale.

[1] Prof. Eugène Wilhelm's paper, entitled "La Patrie et L'Origine de Cyrus (1889)," is worth reading, as it suggests new thoughts about the country of Cyrus.

"To these obvious reasons I think it must be attributed, that no particulars of the Persian victories to the west of the Euphrates have been preserved in the remaining fragments of Persian History; but that the Persian Empire extended over Asia Minor, Egypt, and even part of Africa and Europe, is affirmed in general terms by many a native writer. It is therefore evident, that as the Grecian historians are almost entirely occupied in detailing events which did not affect or interest the whole of the Persian people, and which were consequently omitted or overlooked by their historians, no similarity can be expected to exist in accounts that proceed on such different principles." [1]

"It may, then, be conjectured that these invasions were never led by a Persian king in person; and that even the invading armies were merely composed of troops levied in the dependent States; and that but a very small part of them on any occasion ever consisted of Persian soldiers. . . . . The celebrated invasion of Xerxes may therefore have been only an expedition similar to that of Dates and Artaphanes, but in much greater numbers, and not improbably reinforced by troops detached from Persia Proper, and the whole commanded by some chief of such rank and importance as to induce the Greeks to honour him with the name of king."[2]

Well, Capt. Kennedy wrote all this, at a time, when the cuneiform inscriptions at Persepolis and elsewhere had not seen the full blaze of the daylight of researches. Grotefend had just begun the work. These inscriptions show, that Xerxes and Darius Hystaspes were not mere Persian generals exalted to the dignity of kings, but were real kings of kings (*khshâyathia khshâyathiyânâm*. Behistun I—1) who had conquered a great part of the then civilized world.

I may here draw the attention of my readers to an article on a similar subject, in the K. R. Cama Memorial Volume, entitled "The Ostracism of the Achemenides from the Pahlavi works and the Shâhnâmeh" by Mr. Pallonjee Burjorjee Desai.[3] The author, in his interesting article, attributes the omission to nothing else than the "ignorance of later writers." This subject is still one of those in the history of Persia, which are not satisfactorily settled. I am, however, inclined to think, that the Acheminides referred to by the classical authors and by the inscriptions, and the Kiânians, referred to by Firdousi, were contemporary dynasties, the former ruling in the west of Persia, and the latter in the east in Bactria.

[1] Transactions, L. S., B., II. pp. 136-37. [2] *Ibid*, p. 140.
[3] "The K. R. Cama Memorial Volume," edited by me (1900 A. D.). pp. 27-39.

As to Capt. Kennedy's views, that the Greeks exaggerated facts to an undue extent, there is no doubt. A visit to the classical battlefield of Marathon, even now, about 2,400 years after the battle, would show to an intelligent person, that, there is somewhat of an exaggeration and one-sided view, even in the history of a writer like Herodotus. I had the pleasure of paying a visit to this classical battlefield, on 22nd November 1889, and when there, with the help of an intelligent guide and with the help of what I had read, I soon found, that, in order to give a little colour to the fame of his own countrymen, Herodotus had not mentioned all the facts which would go in favour of the Persians.[1]

As to the question of the chronology itself of ancient Persian history, I think, that what the late Mr. Vishvanath Narayen Mandlik wrote in 1876 as the editor of the second edition of the journal, is still true, that "this part of Persian history is now just as uncertain as in Col. Vans Kennedy's time."[2]

Transactions, L. S., B., II, pp. 180-204. 30*th June* 1818.

"Account of the progress made in deciphering Cuneiform inscriptions." By Mr. C. Bellino.

As the Editor of the second edition of this volume says, "this article is valuable as showing with what difficulties scholars had to contend at the time it was written, and how much they were in the dark even in the manner of reading, not to say understanding the meaning of characters, the decipherment of which had then just been attempted."[3] Various scholars have, since the above was written, visited the spots of the inscriptions, and have added to, and well nigh perfected, the reading and the understanding of the inscriptions. There are still some words, here and there, about the reading of which, there is a difference of opinion and doubt. The latest among the visitors of the Behistun rock inscriptions is Prof. Jackson of the Columbia College of New York, who visited the rock in April 1903. He has described his visit in a paper in the journal of the American Oriental Society.[4] A good deal of new light on some doubtful points in the inscriptions is expected from Prof. Jackson's further studies on the subject.

The discovery and the decipherment of these Irânian cuneiform inscriptions, have thrown a good deal of light upon the history of the Achemenian kings of Persia, whose account of Herodotus, was, here

[1] For my impressions of the battlefield of Marathon, *vide* my જ્ઞાન પ્રસારક વિષયો, (Lectures before the Society for the Diffusion of Knowledge, 1898), pp. 274-82.

[2] Transactions, L. S., B., II (1876), p. 162, Editor's note. [3] Transactions, L. S., B, II, p. 204.

[4] Vol. XXIV (1903), pp. 77-95. "The Great Behistun rock and some Results of a Re-examination of the old Persian Inscriptions on it."

and there, doubted by some subsequent writers. For example, in the very volume of our journal, which contains this article of Bellino, we find[1] Capt. Kennedy doubting, in his article above referred to, most of what Herodotus says. As the latest instance of how the cuneiform inscriptions throw some fresh light upon some of the statements of Herodotus, we find the discovery of the Persepolitan column known as the "Column of Chalouf." Herodotus[2] said, that King Darius had completed the canal, which connected the Red Sea with the Mediterranean, and which was, some time ago, dug by Necho. Now, this statement was doubted by some. But the discovery of the above column, about 40 years ago, has shown, that Herodotus was in the right. It has been found, that the canal of Darius ran well nigh parallel to the modern Suez Canal for half its way. Rawlinson[3] has given a short inscription of Darius found on a stone discovered at Suez. But since that time, well nigh the whole column has been discovered and the inscription on it deciphered. I would refer my readers to an excellent treatise on the subject, entitled "La Stèle de Chalouf" by M. Joachim Menant, who is mentioned in the editor's note attached to Mr. Bellino's article in the second edition.[4]

Transactions, L. S., B., II, pp. 312-361. *27th April* 1819.

"On the Sacred Books and Religion of the Parsis." In a letter from William Erskine, Esq., to Brigadier-General Sir John Malcolm.

The author of this paper divides his subject into four parts—

I. The Ancient Languages of Persia.

II. Comparative credibility of the Greek and Persian historians.

III. The tenets of the modern Zoroastrians.

IV. The antiquity of their particular doctrines and observances.

The author's remarks on the first part of his subject, *viz.*, "The Ancient Languages of Persia" are not of much value. On the origin of the Zend language he says : "It is altogether Sanskrit[5] . . . The Zend was either the Suraseni, or some other cultivated dialect of the Sanscrit, or that it was an Indian dialect spoken by some nation or tribe of Hindu origin, to the east or north-east of Persia, and adopted, perhaps in its natural state, but more probably with some changes, as the sacred language of the country."[6] On the subject of its antiquity he says : "We cannot fairly give the Zend writings a higher antiquity than the age of the Sasânis.[7]

[1] Transactions II, p. 115. *Vide supra* pp. 171-72.
[2] Bk. II, 158; IV, 39. [3] Journal, Royal Asiatic Society, Vol X, Part III (1846), p. 313.
[4] *Vide* my જ્ઞાન પ્રસારક નિબંધો (Dnyân Prasârak Essays), pp. 92-104 for this subject.
[5] Transactions, L. S., B., II, pp. 316. [6] *Ibid*, p. 317. [7] *Ibid*, p. 320.

Now, all these views of Erskine have been proved to be incorrect. He had not sufficient materials to form correct views. As he himself says, the knowledge, which scholars then "possessed of the ancient languages of Persia", was "very limited."[1] The only materials, on which he seems to have founded his views, were the Ferheng-i-Jehangiri, Hyde's Veterum Persarum et Parthorum et Medorum Religionis Historia, Anquetil's Zend Avesta, Sir W. Jones's Asiatic Researches and some memoirs of Anquetil before the Academy of Inscriptions at Paris. So, the conclusions he came to, on these scanty materials, were faulty.

As Prof. MaxMüller says, "Rask was the first, who, with the materials collected by Du Perron and himself, analysed the language of the Avesta scientifically. He proved—

1. That Zend was not a corrupted Sanskrit, as supposed by W. Erskine, but that it differed from it as Greek, Latin or Lithunian differed from one another and from Sanskrit.

2. That the modern Persian was really derived from Zend as Italian was from Latin; and

3. That the Avesta, or the works of Zoroaster, must have been reduced to writing at least previously to Alexander's conquest. The opinion that Zend was an artificial language (an opinion held by men of great eminence in Oriental Philology, beginning with Sir W. Jones) is passed over by Rask as not deserving of refutation."[2]

It appears from a memoir of his literary life, read by the late Dr. Wilson, before our Society, on 15th July 1852, under the title of "Brief Memorial of the Literary Researches of the late William Erskine, Esq."[3] that Erskine was "ultimately led to change" his views, on perceiving the philological researches of Bopp, Burnouf, Lassen, and others."[4]

In the second part of his subject, Erskine says: "very ingenious attempts have been indeed made to place the authority of the Oriental historians above that of the writers of Greece and Rome."[5] Here, he seems to take up cudgels against the views, expressed before the Society, in a previous year, by Capt. Vans Kennedy,[6] though he does not name him. Capt. Kennedy attached a great deal of importance, in point of veracity, to Persian authors like Tabari,

[1] *Ibid*, p. 313.
[2] MaxMüller's Chips from a German Workshop (2nd ed. 1880). Vol. I, pp. 81-82.
[3] Journal, B. B., R. A. S., IV., pp. 276-284. *Vide* below p. 321. [4] *Ibid*, p. 280.
[5] Transactions, L. S, B., II, p. 320. [6] *Ibid*, pp. 115-162. *Vide* above pp. 171-76

Firdousi and others, and doubted the veracity of Greek authors like Herodotus, Xenophon and others. Mr. Erskine, on the other hand, runs down the Persian and supports the Greek historians. We have said above [1] that Capt. Kennedy had, to a certain extent, overshot the mark, the reason being, that he had not before him the Achemenian Inscriptions, which were then just being deciphered. The same is the case with Mr. Erskine, who overshoots the mark, in fighting for the classical writers and in running down authors like Firdousi, the reason being, that he had not before him, all the Pahlavi literature, the semi-historical portion of which, has supplied sufficient proofs for the authenticity of the materials, upon which Firdousi had worked. As to the Avesta itself, it is true, that he had Anquetil's translation before him, but sufficient time had not elapsed since its publication, to have sufficient light thrown upon the historical references in it.

Nobody is more entitled to speak on the subject of Firdousi with great authority than M. Mohl, the famous French editor and translator of the Shâhnâmeh, and we have quoted above (p. 174) his views of the question. Even making allowances for the fact, that editors and translators are, at times, a little partial to the merits of their authors, we find, that there is sufficient of, what we should call, "outside evidence"—evidence based on the Avesta and Pahlavi books—to show, that Firdousi had kept his poetic imagination in due restraint and had rested upon authentic materials.

In the third part of his subject, *viz.*, the tenets of the modern Zoroastrians, Erskine gives a picture of the religious and social life of the Parsees. This picture is faulty in several points. We will briefly allude here to some of his incorrect statements.

1. He says : "Their reverence for the elements makes them careful in no manner to defile them. No impurity is allowed to be thrown into the fire or the water. None of them are smiths, though prevented by no positive injunction ; they never extinguish any light, nor do they enlist as sepoys, pretending that they dare not defile fire by the use of fire-arms. In the great fire in Bombay in 1803, they stood for a long time idle, witnessing the progress of the flames ; but when they found them continuing to spread, to the ruin of their houses and property, their interest got the better of their scruples, and many of them wrought with great alacrity both in procuring water and in helping to extinguish the fire." [2]

Now, we have strong reasons to say, that this picture is far from correct. It was on the 13th of November 1902, that Mr. Goudinho,

[1] *Vide* above p. 175.
[2] Transactions, L. S., B., II, pp. 349-50.

whom I had the pleasure of introducing to this Society, read a paper before it, entitled "Portuguese Documents of the 17th and 18th Centuries relating to Parsees." The paper has, unfortunately not been published in our journal, on the ground, as alleged at the meeting, where it was read and where I was present, that the paper was not original, and contained merely a translation of several old Portuguese documents. I beg to submit, that the Portuguese documents are of some historical importance, not only from a Parsee point of view, but from the point of view of the war, then raging, between the Portuguese and the Marathas; and so, they ought to have been printed in the journal of the Society, for a future reference for some historical facts. However, the Portuguese text of these documents has been published in the local Portuguese paper, *Anglo-Lucitano.*[1] These Portuguese documents show, that the Parsees had no scruples to serve as soldiers, on account of the veneration, in which they held fire. They had served, not only as soldiers, under the Portuguese in the years 1738 and 1739, but had also offered their services as volunteers to their Portuguese rulers. They had raised a special company of their own as volunteers, and two of them were made ensign and captain. While serving thus as soldiers, they did use fire-arms.

2. Again, as to Erskine's allegation, that they hesitated to extinguish the great fire of 1803 until the time when their own houses and property were in danger, we find from Khan Bahadur Bomanjee Byramjee Patel's Parsee Prakâsh,[2] that about 200 houses of the Parsees were actually burned at the time. Mr. Patel gives a long list of the Parsees whose houses were burned. So, it is not possible to believe that a large number of Parsee houseowners actually waited and watched and allowed their properties to be burned.

The Desatir, which Mr. Erskine himself had translated from the text of Mulla Feroze, in 1818, *i.e.*, one year before he read this paper, clearly permits the extinction of fires by water.

It says: "Reverence the four elements, yet do not therefore lay thyself under constraint.

Commentary . . . . . Although fire is the great illuminator . . . . . in cases of necessity, you may extinguish it, but it must be with water."[3]

[1] *Vide* its issues of 13th and 27th December 1902 and 3rd, 10th and 24th January 1903.

[2] Vol. I., p. 882.

[3] The Desatir or Sacred Writings of the Ancient Persian Prophets, by Mulla Firuz bin Kaus (1818), Vol. II., pp. 67-68. The Book of Shet, the Prophet of Yasân. ("*Va hamchunin ba gâh-i-nâchâri ûrâ bâyad faru nishând*"), The Gujarati Desatir of 1848, p. 129, Mr. Pâlonjee Hâtaria's edition of 1887, p. 93.

I wonder, how, in spite of this injunction, in a book, which he himself had translated, Mr. Erskine says in the present paper, that the Parsees did not extinguish fires by water.

3. Take another instance of Mr. Erskine's picture. He says : "The dead body is dressed in clean but old clothes, and conveyed to the place of exposure on an iron bier ; for wood being the aliment of fire, it might, if wooden, be accidentally burned, and so the element of fire defiled."[1] Now, the fact, as stated by Erskine is correct, but the reason given is imaginary. The Parsees do not use wood in their biers, in the construction of their towers, and in anything, with which the dead bodies are likely to come into contact, because, wood being porous, it is likely that it may at times contain germs of disease and so may spread infection.

4. Take another statement of Mr. Erskine, which has misguided many a careless writer about the Parsees. He says : "They watch the corpse, to see on which eye the vulture first seizes : if on the right eye, it is a fortunate sign."[2] Any ordinary visitor at the towers, if he were to look at a funeral, would say, that this statement is all imaginary, because nobody, not even the closest relations or friends, are allowed to go into the towers. So, how can they watch the alleged thing ?

5. Again he says : "They place meat and drink near the body for three days, as during that time the soul is supposed to hover around in hopes of being re-united to it."[3] Now, as a matter of fact, the body is never kept in the house for more than one day. Then, how can meat and drink be placed before it ? The statement is all imaginary. What is done, is simply this, that for at least three days, the place in the house, where the corpse was placed for several hours, before being removed to the towers, is set apart, and the living do not pass over the spot for that time. That injunction is given from a sanitary point of view, that, if there be germs of disease hovering there, the living may not catch infection. The only thing placed there, is a few flowers, and a lamp is kept burning there.

6. Again there is another misstatement of Erskine. He says : "The bearers are tied to each other by a piece of tape, to deter, as they allege, by their union the wicked demons who hover round the body from defiling them."[4] As many must have observed in Bombay, the bearers are not tied to each other, but they simply hold a tape between them. The mourners, who follow the corpse, walking in pairs, similarly hold a handkerchief between them. This is as a mark and symbol of sympathy

[1] Transactions, L. S , B., II., p. 350. [2] *Ibid*, p. 351. [3] *Ibid*. [4] *Ibid*, p. 350-51.

and mutual help. I would refer my readers, who want to understand the signification of the funeral ceremonies of the Parsees, to my paper entitled "The Funeral Ceremonies of the Parsees, their Origin and Explanation," read before the Anthropological Society of Bombay and published in its Journal (Vol. II, No. 7, pp. 405-440).

Coming to the last part of Mr. Erskine's paper, *viz.*, "The Antiquity of the Religious Opinions of the Parsees," Trans. II., p. 355), we find, that in the early part of his paper he brings down the antiquity of the Avesta to the time of Ardeshir Babegân, but places the origin of the existing usages of the Parsees in more ancient times. Now, as to the question of the antiquity of the Avesta, we find, that the question has undergone, as it were, through several phases. There was a time, when Sir William Jones, on the publication of Anquetil Du Perron's works on the Zend Avesta, said, that the Zend Avesta was a mere fabrication of the Parsee priests of India, and that Anquetil was simply duped by the priests of Surat. Sir W. Jones' views were soon exploded. After him, we find Mr. Erskine holding the same view in 1819, that the Avesta, as now extant, belonged to the time of Ardeshir Babegân. This view has long since been exploded by eminent scholars of, what is termed, the Vedic School, by scholars like Benfey, Roth and Haug. But Erskine's view was again lately revived by the late lamented Dr. Darmesteter,[1] who was preceded in these views, to a certain extent, by his learned teacher, M. Bréal. Dr. Darmesteter had, to use the words of the late Prof. Max Müller, "thrown a bomb-shell in the peaceful camp of Oriental scholars."[2] Prof. Max Müller and Dr. Mills in England, and Prof. Tiele and other scholars in Germany have restored that peace again.

Mr. Erskine's views on the Antiquity of the Avesta, which he brings down to the time of Ardeshir Babegân (Artaxerxes I.), have been well refuted by Mr. K. R. Cama in his Jartoshti Abhyâs[3] (*i.e.*, Zoroastrian studies). Mr. Cama's principal argument is, that, while reviving the Zoroastrian literature, Ardeshir Babegân had given no instructions to add extraneous or new matter to what had come down traditionally from father to son. Even, if he had given such instructions, the learned of the time had not the ability or power to do so, because the Avesta language was then well nigh dead. That even the most learned of the times, were not capable of writing religious and philosophical subjects in the Avesta language, is proved from the fact, that it appears from some parts of their Pahlavi translations, that

[1] Le Zend Avesta, Tome III, Preface. The Vendidâd, S. B. E., Vol. IV, 2nd Ed., Introduction.
[2] Prof. MaxMüller in the "Contemporary Review" of December 1893.
[3] No. II., pp. 49-52.

they were not sufficiently able to grasp the original Avesta. So, they have honestly said at times "lâ raôshan," *i.e.*, the particular points are not clear to them.

Mr. Cama's second argument is, that in the Farvardin Yasht of the Avesta, we find no names of personages after the Kiyânian times. This fact shows, that the extant Avesta writings were written before Ardeshir Babegân's time.

I have described and refuted Prof. Darmesteter's views, which re-echo some of Mr. Erskine's views, in a paper, entitled "The Antiquity of the Avesta," read before our Society[1] on 26th June 1896.

Transactions, L. S., B., II, pp. 362-398. *25th May* 1819.

"On the authenticity of the Desatir, with remarks on the account of the Mahabadi religion contained in the Dabistan." In a letter to Brigadier-General Sir John Malcolm by William Erskine.

The Dabistân and the Desâtir are two Persian books, which had drawn a good deal of attention of the scholars of Persian literature, history and religion in the early part of the last century. Had it not been for the honoured name of Sir William Jones, "the Columbus of the new Old World of Sanskrit and Persian literature," they would not have perhaps drawn that attention. Sir William Jones attached a good deal of importance to them, especially to the Dabistân, from the historical point of view. In his Asiatic Researches,[2] he grew enthusiastic over the Dabistân and called its discovery "a fortunate discovery," as dissipating a cloud and casting "a gleam of light in the primeval history of Irân and of the human race" of which he "had long despaired and which could hardly have dawned from any other quarter."[3] No wonder that Sir W. Jones grew enthusiastic over this newly discovered book, because, it mentioned the rule of some other dynasties over the throne of Persia, previous to the first Peshdâdian dynasty, referred to by Firdousi and other authors.

The Dabistân refers to the Desâtir, as a book sent by God[4] and as the "Venerable Desâtir"[5] and speaks of its language as the "celestial language."[6] The only copy of this book was found in the possession of Dastur Molla Feroze, whose father, Kâus, is said to have brought it from Persia.[7]

[1] Journal, Vol. XIX, pp. 263-87. This paper has been translated into French and published in the "Revue de l' Histoire des Religions."

[2] Vol. II, pp. 43-66. The Sixth Discourse on the Persians, delivered on 19th February 1789.

[3] *Ibid*, p. 48. [4] The Dabistan by Shea and Troyer (1843), Vol I., p. 20.

[5] *Ibid*, p. 44. [6] *Ibid*, p. 123. [7] The Desatir (1818) Preface, p. vii. The text and translation, published in Gujarâti in 1848 by Mulla Kaikobâd. Preface p. ix.

Sir W. Jones having spoken so enthusiastically of the Dabistan, the Desâtir, referred to in it, also rose in great estimation, and, as Erskine says, "it now became an object of particular curiosity to discover the Desâtir . . . . and the Honourable Jonathan Duncan, Esq., the late Governor of Bombay, considered himself as supremely fortunate in having at length made the longed-for discovery."[1] Governor Duncan, who knew Persian well, requested Mulla Feroze "to show it to no person whatever, and having undertaken a translation of it, continued to prosecute his work, at intervals, for several years, intending on his return to England to present it to His Majesty as the most valuable tribute which he could bring from the East."[2]

Even, Marquis of Hastings referred very enthusiastically to its discovery, at the time of his "public visitation of the College of Fort William on the 15th July 1816."[3] Among the literary notices of that year he noticed it as a "literary curiosity."[4] The Governor, the Hon'ble Jonathan Duncan, died before finishing his work,[5] and so, later on, Sir John Malcolm, the next Governor, asked William Erskine to translate the work. Before the translation was published, Erskine took a notice of this "new discovery" in this paper, and ran down the book, and also the Dabistân, over which, Sir W. Jones had grown enthusiastic, as books of not much importance, and as books, throwing very little of authentic light upon the history and religion of ancient Persia.

Mr. Erskine's paper gives an excellent outline of the Desâtir, and is, even now, worth reading for those, who do not wish to go through the whole book. Again, his views both on the Dabistân and the Desâtir, are, to a great extent, correct. These books, though very useful in themselves, as they give an outline of the different faiths and beliefs, prevalent at one time or another, do not deserve that enthusiastic importance, which Sir W. Jones sought to attach to them, especially to the Dabistân, from the point of view of the history and religion of ancient Irân.

The Dabistân is not original in much of its contents. I have shown in my paper,[6] before this Society, entitled "The Parsees at the Court of Akbar and Dastur Meherji Rana," that, in its chapter on the Ilâhi Din (Chap. X, Sec. 2), it has copied verbatim, long extracts from Badaoni's Muntakhab-al Tavârikh. In the chapter on "The Religion of Zoroaster" also it has copied a good deal from the Desâtir.

[1] Transactions, L. S. R. II, p. 368.
[2] *Ibid.* p. 369. The Desatir (1818 A.D.) Preface, p. viii. The Gujarâti edition of 1848. Preface, p. ix. [3] The Desatir (1818 A.D.) I, Preface, p. vi. [4] *Ibid.*
[5] *Ibid.* p. viii. [6] Journal, B. B. R. A. S., Vol. XXI, No. LVIII.

Now, what is it, that the Desâtir wants to teach us ? It is something, that is Zoroastrian, and something, that is Brahminic and Budhistic. It is, to a certain extent, *sufeistic* in its teachings. It contains the mystic ideas found in Zoroastrianism, Brahaminism and Budhism. It is a book of a certain sect of believers, who, now and then, appear in different countries and in different ages, and who look to, what is called, the esoteric, side of things, as opposed to the exoteric, and who look to the mystic side of almost all religions for their elements of belief. Erskine's estimate of the Desâtir is well nigh correct, when he says : "Far from regarding the doctrines of the Desâtir and the historical narrative of the Dabistân as resting on unexceptionable authority. . . . I consider the whole of the peculiar doctrines ascribed to Mahabad and Hoshang as being borrowed from the mystical doctrines of the Persian Sufis, and from the Ascetic tenets and practices of the Yogis and Sanyasis of India, who drew many of their opinions from the Vedanti School." [1]

Then, as to the time, when these doctrines existed, Erskine says : "I regard them as having had no existence before the time of Azer-Keiwan and his disciples in the reigns of Akbar and Jehangir."[2] But, it seems, that though these doctrines may have been reduced to some form much later, they existed in one shape or another, and in one country or another, in much older times. For example, that doctrine of the Desâtir, which says, that the planets, the fixed stars, the elements, and the animal, vegetable and mineral kingdoms have their intelligences, their guardian angels, their protectors, that all nature is full of the guardian souls, and that "every genus and every specie has its guardian,"[3] reminds us of Plato's philosophy about the "Ideas" of things in Nature, and of the Avesta philosophy of the Farôhars.

Sir W. Jones had, as said above, at one time, doubted the authenticity of the Zend Avesta, brought to light by Anquetil Du Perron, and said, that it was a forgery and that Anquetil was duped by the Parsee priests of Surat. His theory was very shortly proved to be wrong. Then, as it were, as the fate would have it, his own turn came next, and his Desatir, to which he attached great importance, as having been referred to in the Dabistân, which he brought to light with a flourish of trumpets in his sixth annual discourse at the Bengal Asiatic Society,[4] had to stand the heavy fire of several Oriental scholars, as to whether, it or its language was a forgery or not. Erskine, in this paper, declared its language to be a "late invention."[5]

[1] Transactions, L. S., B., II., p. 393. [2] *Ibid.* [3] *Ibid*, p. 375.
[4] Asiatic Researches, Vol. II, pp. 43-66. [5] Transactions, L. S., B., II., p. 382.

Mr. Norris followed suit, and in a letter, dated 1st July 1820, published in the Asiatic Journal,[1] said that its language was "nothing more than Deri disguised."[2] After a long philological comparison, he says that "the boasted Mâhâbâdian language which was spoken in Iran long before the establishment of the Pishdâdian monarchy and in which we were to expect the parent of the Sanscrit, the Zend, and the Parsi, is nothing more than a jargon, which was invented, in all probability, by the professors of the faith of Hosheng."[3] "As to the time, at which the Desatir was really written," Mr. Norris hazards a conjecture, that it was "a fabrication of the 7th Century, to have been occasioned by the introduction of the Mohammedan faith into Persia, to have been set up as a rival to the Koran, and to have been intended to counteract the influence of a book which was preferredly received from heaven, and which was likely on that occasion to make a great impression on the minds of the people."[4]

Silvestre de Sacy also followed suit, and in the *Journal de Debats* of February 1821, decided against its antiquity.[5] William von Schlegel called it a "refined forgery."[6] In 1843 it found a defender in Anthony Troyer.[7]

I would here draw the attention of my readers, to a very excellent paper by Mr. Sheriârjee Dâdâbhoy Broachâ, a very learned Oriental scholar of our city, entitled "The Desâtir," read before the Oriental Congress at Geneva in 1894, and also read before the Jarthoshti Din-ni-Khol Karnâri Mandli (*i. e.*, Society for enquiring into Zoroastrian studies)[8] in August and September 1894. The paper is not as yet published in full. It gives an excellent outline of the contents of the Desâtir, and shows, how far its doctrines agree with, or differ from, those of the Avesta. It also shows, on philological grounds, that its language is not old, but very recent. Mr. Sheriarji thus sums up his views :—

"With these few observations—religious, historical and linguistic—on the Desâtir, we will now bring this essay to a close. After a careful examination of the book, we cannot but come to the conclusion that it is erroneous to reckon it as one of the genuine Zoroastrian writings. For it is neither coeval with the Avesta nor with the writings of the earlier Sassanian times, but is decidedly a production of still later

[1] The Asiatic Journal for November 1820, Vol. X, pp. 421-430. Mr. Norris's article is quoted at full length in Mulla Kaikobad's Gujarâti edition of 1848 A.D. Preface, pp. xli-xlvii.

[2] *Ibid*, p. 421. The Gujarâti edition of 1848, p. 41.

[3] *Ibid*, p. 428. The Gujarâti edition, p. 46.

[4] *Ibid*, p. 430. *Ibid.*, The Gujarâti edition, p. 47.

[5] The Dabistan, by Shea and Troyer. Preface, p. xxxvi. [6] *Ibid*, p. xlv.

[7] *Ibid*, pp. xix-lxv. *Vide* the printed Report of the Society (1902), pp. 120-24.

times. Although its teaching is professedly antagonistic to the Mosaic, the Christian, the Manikian, the Mazdakian and the Mohammedan doctrines, it does not also wholly agree with all the doctrines of Zoroastrianism. Its tendency is more towards the Hindu, Budhistic and Platonic philosophies. For example, it prohibits the use of animal flesh as food, and encourages asecticism, self-mortification, celibacy and renouncement of the world. Its treatment of the dead body, by washing it with pure and rose-water, interring or burning it, is diametrically opposed to that of Zoroastrianism, to which all these methods are repugnant. It also considerably differs from Zoroastrian writings in points of chronology, mythology, and history; and its so-called *âsmâni* or the celestial language is decidedly a conventional jargon composed of later Pehelvi, Persian, and Hindu dialects. The very syntax of the Desatir, betrays its later origin. When we consider all these, we cannot reckon it of the category of the reliable orthodox Zoroastrian writings."

I would not call the language of the Desâtir, an intentional forgery, to pass off the author's view in an affected old language. We must note, that it is not the author of the Desâtir himself, who calls its language "*âsmâni*" or heavenly. He writes, what we may generally call, a mystic book, based on *sufeistic* and mystic views of different communities. Such mystic writers always aim at a kind of secrecy in the expression of their doctrines. So, in this book also, the author used, what he thought to be, a mystic dialect, made up from the languages of the different religions, from whom he drew his mystic tenets.

Transactions, L. S., B., III, pp. 1-55. *Read* 31*st August* 1819.

"Remarks on the state of Persia from the battle of Arbela in A.C. 331 to the rise of Ardashir Babegan in A.D. 226." By Major Vans Kennedy.

This paper presents "an inquiry . . . into the actual state of Persia during the 557 years which elapsed between the conquest of Alexander and the rise of Ardashir Babegân," undertaken with a view that it "may possibly contribute to the rectification of some errors which have been admitted into ancient history."[1] Some of these errors, which Kennedy proposes to rectify, are the following :—

I. "The supposition, that the Parthians were not Persians, and that they had attempted to extirpate the religion of Zoroaster."[2]

II. The supposition "that the Hindoos might have derived much of their science from the Greeks of Bactriana."[3]

[1] Transactions, L. S., B. III., p. 1. [2] *Ibid.* [3] Transactions L. S. B. III., p. 1

In his previous paper, entitled "Remarks on the Chronology of Persian History previous to the conquest of Persia by Alexander the Great,"[1] Major Kennedy ran down the ancient Greek and Roman classical writers and extolled the native Mahomedan writers, in matters appertaining to history. In this paper, he finds fault with the classical authors, even in the matter of their geographical knowledge. In support of his previous contention, *viz.*, that the ancient classical authors were not authentic and correct, he quotes Strabo, and his quotation is worth noting here, to guide modern students, not to place implicit confidence in everything, that the classical authors say, and not to take all, that they say, as Gospel truth. Strabo, as quoted by Kennedy, says :—

"But neither has the truth respecting the Messagetæ been ascertained by any author, nor can even much credit be given to what any authors have related of the ancient history of the Persians, Medes, and Syrians, on account of their simplicity and love of fable; for, observing, that the writers of fables were highly honoured, they too thought that they would render their works agreeable, if, under the form of history, they related what they never had seen or heard; and on this account they studied only how to communicate wonder and pleasure: for one would sooner give credit to the heroic numbers of Hesiod, Homer, and the tragic poets, than to Ctesias, Herodotus, Hellanicus and similar writers. Nor is it altogether safe to trust the most part of the authors who have written concerning Alexander: for they exaggerate both on account of the glory of Alexander, and of the difficulty there is in refuting relations of events which occurred at the extremity of Asia."[2]

Then, as to "the geographical accounts of Persia which have been given by Greek writers,"[3] Kennedy proceeds to show, that they "are far from correct, as, when carefully examined, they do not agree with each other, and as they are not only inconsistent with the opinions of the natives, but also with probability."[4]

As an illustration of this want, on their part, of correct geographical knowledge, Kennedy refers to the case of Strabo and Ptolemy, describing "the Oxus and Jaxartes to have flowed into the Caspian Sea."[5] Now, the latest views of geographers have shown, that Kennedy was wrong in attributing ignorance to Strabo and Ptolemy, and that the ancient geographers were right It is true, that the Oxus does not fall at present, into the Caspian, but falls into the sea of Aral. But, modern

[1] *Ibid*, Vol. II., pp. 115-162. *Vide* above pp. 171-76. [2] *Ibid*, Vol. III., p. 2. This passage of Strabo occurs in his Bk. XI., Ch. VII., 2 and 3. (Hamilton and Falconer's Translation of 1856, Vol. II., pp. 240-41).

[3] *Ibid*, p. 6. [4] *Ibid*. [5] *Ibid*, p. 4.

geographers have shown, that, at one time, the Oxus did fall into the Caspian.[1]

The river Ardviçura of the Avesta, which some take to be a mythical river, can be identified with the Oxus. Some identify Oxus with the Vehrud[2] of the Zend Avesta, and take the names of the districts on its banks, "Wakhan, Wakhst and Washgird" to be derived from the word Veh. But the identification of the Ardviçura with the Oxus seems to be correct. I think, that the very name Ardviçura may correspond with the name Oxus. Ardviçura may, by shortening the turn of its 'd' ,, be read as Arkviçura . The last ra may have been dropped, as it sometimes happens. The word may be then Arkviçu. Now, Oxus is said to have derived its name, from one of its great tributaries, the "Aksu." This Aksu seems to be a modified form of Arkvisu, in which the letter "r" is latterly dropped. This Ardviçura also is spoken of, in the Old Parsee books, as flowing into the sea Vouru-kasha, which is identified with the Caspian.

I. Now, coming to the subject of the first of the two errors, which Kennedy proposes to rectify, *viz.*, that the Parthians were not Zoroastrians[3], he enters into the subject, at some length, in this paper. Those who make this supposition, seem to base their assertion, on the belief, that the Parthians were not Persians but Scythians. Strabo calls Arsaces, the founder of the Parthian dynasty, a Scythian, but at the same time says that, "according to others, he was a Bactrian."[4] Justin speaks of him as "a man of uncertain origin."[5]

Of the Parthians, Justin says: "The Parthians . . . were originally exiles from Scythia. This is apparent from their very name; for in the Scythian language exiles are called *Parthi.*"[6]

So, it appears, that there has been some difference of opinion, since the very classical times, as to who Arsaces, the founder of the Parthian dynasty was. Gibbon[7] has taken the Parthian kings to be Scythians. Kennedy tries to prove, that they were Persians and not Scythians.

[1] *Vide* my Essay on Avestic Geography (અવસ્તાની ભુગોળ) in my (અવસ્તા જમાનાની ઘરસંસારી જીંદગી, ભુગોળ અને એકરાર નામું) "Avestic Social Life, Geography and Articles of Faith," p. 191. *Vide* General Walker's article on "Oxus" in the Encyclopædia Britannica, Vol. XVIII, p. 104. [2] Encyclopædia Britannica. *Ibid*, p. 101.

[3] Transactions, L. S., B., III., p. 1.

[4] The Geography of Strabo, Bk. XI, Ch. IX, 3. Hamilton and Falconer's Translation II, p. 251.

[5] Justin's History of the World, Bk. XLI, Ch. IV. Revd. Watson's Translation of Justin, Cornelius Nepos and Eutropius (1853), p. 275.

[6] Justin's Bk. XLI, Ch. I. Revd. Watson's Translation, *Ibid*, p. 271.

[7] The Decline and Fall of the Roman Empire, Ch. VIII, Edition of 1845, Vol. I, p. 124.

Strabo and Justin, though they said, that it was not certain, whether Arsaces, the founder of the Parthian dynasty, was a Bactrian or a Persian, believed, that the Parthians, as a nation, were originally Scythians. Kennedy enquires into the two circumstances, which may have possibly led some to think that the Parthians were Scythians.

1. The Parthian kings, when they went to war, had their armies accompanied by a "numerous train of all descriptions of people which has invariably followed an Asiatic army; and which to the well-disciplined Romans must have appeared much more like the emigration of a Scythian tribe than troops intended for battle."[1]

2. The Scythians were good shooters. The Parthians were good shooters. "A Parthian shot" has become proverbial. So, the Parthians were thought by some to be Scythians. But, we have the authority of Herodotus and others, to say, that the Persians also learnt archery from childhood.

Now, then, if you admit, that the Parthians were not Scythians, but Persians, it follows, that they were Zoroastrians. Kennedy says on this point: "That the Parthians were a rude people, averse to the customs and manners of the Persians, hostile to literature and science, and the oppressors of the faith of Zoroaster, are assumptions which rest on no other grounds whatever than the mere assertion of ancient authors, that the Parthians were Scythians."[2]

Kennedy had no Pahlavi books before him to guide and assist him, but they support his contention. The Dinkard[3] names a king of the Parthian dynasty, Valkhash (Vologeses), who was not only a Zoroastrian, but a founder or the originator of the Zoroastrian Renaissance, which followed the dark age after Alexander, and which reached its zenith in the reign of Ardeshir Babegân.

We have also the authority of Tacitus, to say, that the family of this Valkhash was an orthodox priestly family. His brother Tiridates, the king of Armenia, was a king as well as a priest; and so, when called to Rome by Nero, refused to go there by sea for some religious scruples. Tacitus says on this point: "Neither would his brother Tiridates refuse coming to Rome to receive the Armenian diadem, but that the obligation of his priesthood withheld him; he would, however, go to the standards and images of Cæsar and there, in presence of the legions, solemnly receive the kingdom."[4] Subsequently, when Tiridates did go to Rome, he went by land instead of by sea. It is

[1] Transactions, L. S., B., III, p. 21.
[2] *Ibid*, Transactions III, pp. 33-34.. [3] S. B. E., XXXVII, West, p. 413.
[4] Works of Tacitus, Vol. I. The Annals, Bk. XV., p. 24. The Oxford Translation.

said, that even Valkhash, who himself also was a priest as well as a king, refused to go to Rome by sea, when called by Nero, and that the latter took this refusal as an insult.

Thus, we see, that we have the authority of an old Parsee book, as well as that of a Roman writer, to say, that the Parthian kings were Zoroastrians. But, there is no doubt, that during that dynasty, there was a good deal of indifference and scepticism. Hence, the necessity of the Renaissance, which began with Valkhash (Vologeses I.), grew under the fostering care of Ardeshir Babegân, and was continued by his son, Shapur.

II. On the subject of the second erroneous supposition, *viz.*, that the "Hindus might have derived much of their science from the Greeks of Bactriana," Kennedy's line of argument is this: The Greeks of Alexander and his successors did not remain long in Bactriana, and that they could not even influence Bactriana itself. How then, could they have influenced the Hindus through Bactriana?

Kennedy says, that, even during his short rule, Alexander did not subvert the customs, laws and religions of the Persians. One of Kennedy's arguments, to come to that conclusion, is, that the strength of Alexander's army could not allow him, even if he wished, to do so. He says: "If the strength of Alexander's army be considered, it will be evident that this was the only policy which he could adopt with safety."[1] Kennedy enters into the statistics, given by classical writers, about the number of the army of Alexander and his successors, and says, that their number was not so large, as to permit them to subvert the customs and religion of Persia. The number of the army being small, it was their policy, not to excite the Persians to revolt, by interfering with their customs and religion. He says: "It hence seems obvious that the conquest of Persia by the Greeks differs materially from every other conquest which is recorded in history. The lands of the vanquished were not divided amongst the principal leaders of the victorious army, nor was even the country occupied and its possession maintained by large bodies of troops. The Government alone, which had previously existed, was in appearance subverted . . . . . The life of Alexander was too short to admit of his introducing any such changes; and constant wars and consequent weakness prevented Antigonus and the Syrian kings from attempting any innovations. . . . . Under such circumstances, it cannot be supposed that they would attempt to subvert their customs, laws, or religion. On the contrary, it seems far more probable

[1] Transactions, L. S., B., III, p. 8.

that the few Greeks who were scattered over the wide extent of Persia would assimilate themselves as much as possible to the natives, and that they would by intermarriages become, in the course of the second or third generation, entirely blended and identified with them." [1]

"If there be any justice in these remarks, it will follow that Bactriana, after Theodotus in B.C. 255 declared himself independent, cannot in any sense of the word be considered as a Greek kingdom. . . . . It is hence by no means improbable that the Bactrian kingdom might have been both extensive and flourishing. But it seems scarcely possible that the Greek troops, who were stationed in Bactriana, could have been in the slightest degree instrumental in diffusing either knowledge or science. It must always be recollected that they were left there in B.C. 327; and that from the remoteness of their situation they were cut off from all communication with Greece. Nor does it appear from any ancient writer, that after Alexander's transient invasion, any other Greek or Syrian army than that of Antiochus the Great ever penetrated into Khorasan. The descendants of the Greeks in Bactria, therefore, could possess no peculiar knowledge except such as they derived from their fathers; and any observation must be superfluous to show that the rude soldier and the as rude officer were little likely to be acquainted with either literature or science. . . . . It is most probable that, so far from being able to instruct either the Persians or Indians, they might have derived from them much more information than they could possibly communicate." [2] It is thus, that Kennedy argues. He then concludes, that it is an erroneous supposition to say, "that the Hindus have derived much of their science from the Greeks of Bactriana."

Now, the question, whether the Greek civilization influenced ancient India or the Indian civilization influenced Greece, is still a subject of difference of opinion.[3] Among the best latest writers, expressing the former opinion, was the late German savant, Prof. Weber. Mr. V. A. Smith, in his latest book (The Early History of India, from 600 B. C. to the Muhammadan Conquest, including the Invasion of Alexander the Great), thus sums up the other view: "India was not Hellanized; she continued to live her life of 'splendid isolation' and soon forgot the passing of the Macedonian storm."

It appears, that the influence was mutual. India was influenced by the West, which, in its turn, was influenced by India. Among, what we

[1] *Ibid*, pp. 14-15. [2] Transactions III, pp. 14-17.

[3] *Vide* for this subject (*a*) "History of Sanscrit Literature," by Macdonell, Chap. XVI, entitled Sanskrit Literature and the West.

(*b*) Journal of the Asiatic Society of Bengal, Vol. LVIII, Part I. (1889), Mr. Smith's article on "Græco-Roman Influence on the Civilization of India," pp. 107-198; Vol. LXI, Part I, pp. 50-76.

may call, the results of the permanent influence of the West upon India, we may include the following :—

1. The Indian writing had a Semitic source. It is supposed to have been introduced into India in about 800 B.C.[1]
2. The rule, of about 80 years, of the Græco-Bactrian princes, who began to conquer Western India in about 200 B.C., had a strong influence upon the coinage of the country.[2]
3. The rule of about 300 years of the Scythian kings (120 B.C. to 178 A.D.), called by the Indians, the Çakas, which is believed to be the Persian designation of the Scythians, is commemorated by the Çaka era, which "dates from 78 A.D., the inaugural year of Kanishka, the only famous king of this race."[3] The Jats, a tribe of the Punjab, are said to have been descended from these Scythians.

Among some of the most certain results of the influence of India upon the West, may be mentioned the following :—

1. The migration of Indian fables to the West.
2. The migration of the Indian game of chess[4] to the West, through Persia, in the time of Noshirwan (Chosroes I.).
3. The influence of Indian thought upon Greek Philosophy. As striking instances of some possible influence of Indian thought upon the West, Dr. MacDonell gives the following doctrines :—

   (*a*) "Some of the leading doctrines of the Eleatics, that God and the universe are one, that everything existing in multiplicity has no reality, that thinking and being are identical, are all to be found in the philosophy of the Upanishads and the Vedânta system, which is its outcome.

   (*b*) "Again, the doctrine of Empedocles, that nothing can arise which has not existed before, and that nothing existing can be annihilated, has its exact parallel in the characteristic doctrine of the Sânkhya system about the eternity and indestructibility of matter.

"According to Greek tradition, Thales, Empedocles, Anaxagoras, Democritus, and others undertook journeys to Oriental countries in order to study philosophy. Hence there is at least the historical possi-

[1] MacDonell's Sanskrit Literature, pp. 16 and 408. [2] *Ibid*, p. 412. [3] *Ibid*, p. 413.
[4] *Vide* my paper before the B. B. R. A. S., entitled "Firdousi on the Indian Origin of the Game of Chess." Journal, Vol. XIX, pp. 224-236.

bility of the Greeks having been influenced by Indian thought through Persia."[1]

(*c*) The Pythogorean doctrines of (*a*) the transmigration theory (*b*) and of the assumption of five elements, (*c*) his "theorem in geometry, (*d*) the prohibition as to eating beans, (*e*) the religio-philosophical character of the Pythogorean fraternity, (*f*) and the mystical speculations of the Pythogorean school, all have their close parallels in Ancient India."[2] Pythagoras is supposed to have learnt all these from Indians in Persia.

(*d*) The neo-Platonist philosophy is supposed to have been influenced by the Sânkhya system.

(*e*) The same Sânkhya system influenced Christian Gnosticism in the 2nd and 3rd centuries.

(*f*) Coming to nearer times, the pessimistic philosophy of Schopenhauer was influenced by Indian thought expressed in the Upanishads.

4. In science, (*a*) India has given the numerical figures to the West through the Arabs.

(*b*) In Geometry, the West is supposed to have borrowed something from India. "The arrangement of the sacrificial ground and the construction of altars, according to very strict rules, the slightest deviation from which might cause the greatest disaster," at first led the Indians to primitive thoughts about Geometry.

(*c*) In later times, even Indian Astronomy influenced the West through the Arabs.

(*d*) The same was the case in Medical Science; some of the Indian medical works were translated by the Arabs into the Arabic, and these translations had a certain influence upon European medical science.

5. Of the influence of Indian literature upon the West, Dr. MacDonell says: "The intellectual debt of Europe to Sanskrit literature has thus been undeniably great; it may perhaps become greater still in the years that are to come."[3]

Weber thinks that the old literature of India was influenced by Greece. For example, the Mahâbhârata was influenced by Homer's Iliad.[4] Again, the Indian Drama was influenced by Greek plays, played in India during the time of the Greek invasion. But the question of this influence is not settled.

[1] MacDonell's Sanskrit Literature, pp. 421-22. [2] *Ibid*, p. 422. [3] *Ibid*, p. 427.
[4] *Vide* Principal MacMillan's Lecture on "Indian and Homeric Poems in his "The Globe Trotter in India and other Indian Studies" (1895), pp. 171-192.

Thus we see, that, in undervaluing the influence of the Greeks, Kennedy rather overshoots the mark. Though the rule of the Greeks in Persia and Bactriana was short, their influence in destroying the old state of affairs was not so little as Kennedy supposes. He says, that it was to the interest of Alexander, that, small as his army was, he should not disturb the religion and customs of the conquered people. Kennedy generally places greater faith in native sources than on classical authors. Now, he had not before him, the Pahlavi books of the Parsees to guide and assist him in this matter. They had not come to sufficient light at his time. More than one Pahlavi book has very clearly said, that Alexander destroyed the ancient literature, and with it, the religion of the country. It is for this reason, that they[1] generally speak of him as "Gazashté Alexieder", *i.e.*, "the cursed Alexander." They put him into the class of wicked men, like Zohâk and Afrâsiâb, who devastated their country. It was true, that, as Kennedy says, it was to his interest, that he should preserve their religion and not disturb or excite their feelings, lest they may rise in rebellion. But, he sought other means to gain that end. A very interesting account of the correspondence, that passed between him and his tutor Aristotle, has been preserved in a letter of Tansar, the Vazir and headpriest of Ardeshir Babegân, to the king of Tabaristân. The original Pahlavi has been lost, but its Persian translation has been preserved, though with a good deal of subsequent interpolations and additions. The late Prof. Darmesteter has given to the public the text of that Persian letter and its translation.[2] We learn from that letter, that in order to secure the above end, Alexander thought of putting to death the leading aristocracy of Persia whom he expected to rise in rebellion. But Aristotle prevented him from resorting to such a dastardly act, and advised him to divide Persia into different principalities and to set up a Persian nobleman to rule over it as an independent ruler. He said, that such independent rulers (Maluk-i-Tawâif) would fight among themselves for supremacy, and thus weaken themselves, so as never to be able to rise in open revolt against Alexander. Alexander did this. It is an interesting correspondence, and as it is not referred to by any classical writer, I will quote it here at some length. Alexander writes to Aristotle :—

"Par la grâce de Dieu tout puissant nos affaires sont en bonne voie et je veux partir pour l'Inde, la Chine et l' Extrême Orient. Mais je réfléchis que, si je laisse en vie les grands de la Perse, en mon absence ils feront naître des troubles qu'il sera difficile de réprimer ; ils envahiront Roum et attaqueront nos provinces. Ce

[1] Viraf-Nameh, ch. I, 3. [2] Journal Asiatique Neuvième Série, Tome III (Mars-Avril 1894), pp. 185—250; (Mai-Juin 1894) pp. 502—555.

que je vois de mieux à faire, c'est de les faire périr tous et je pourrai alors, libre de toute inquiétude, réaliser mes projets." [1]

Translation—By the grace of the Almighty God, our affairs are getting on well, and I want to start for India, China, and the Extreme East. But I think, that if I will leave alive the great men of Persia, in my absence, they will create troubles which it will be difficult to suppress. They will invade Asia Minor and carry an attack over our provinces. What I think best to do, is to kill them all, and then being free from all anxiety, to realize my projects.

Aristotle replied, "It is an averred fact, that, in the world, the races of all climates are distinguished by an excellent trait, a talent, (and) a special superiority which is not found in the races of other climates. What distinguishes the Persians, is courage, bravery and prudence on the day of battle, qualities which form the most powerful instruments for sovereignty and success. If you will exterminate them, you will destroy from this world, the best pillar of talent, and once the great men have disappeared, thou shalt be unavoidably forced to pass down to villains, the functions and the ranks of the great. Now, bear this in mind, that in this world, there is no evil, plague, revolt and pestilence, the action of which shall be so pernicious as the promotion of villains to the ranks of nobles. Take care then, turn away your bridle from this project, and in your accomplished wisdom, cut off the tongue of the severity which carries (pain) and wounds more than the lance which slays a man, and for the sake of getting a little ease in this ephemeral life, do not go to lose your good name by following vague calculations, instead of the truth and certainty of religion and faith. . . . . What you have to do, is to entrust the kingdom of Persia to these kings (*i.e.*, the petty kings of provinces), and to confer the crowns and thrones upon them, wherever you find them (fit), without giving to any one of them, the precedence or authority over others, in such a way, that every one rules like an independent prince. To bear the crown is a thing of which one may be proud, and a chief, who has obtained the crown, does neither consent to pay tribute to anybody, nor to bend his head before another. This will create, then, among the petty kings, so much of discord, misunderstandings, competitions and disputes for the purpose of having power, so much of rivalry for the display and spread of their riches, so much of quarrels for the degree of respect, so much for the show of their followers, that they will have no leisure to take revenge against thee, and being absorbed in their own affairs, will no more think of the past. And when you will go to the furthest end of the world,

[1] Journal Asiatique Neuvième Série, Tome III, p. 503 (1894).

every one of them will frighten his neighbour with thy power, with thy force, and with the threat of thy assistance, and there will be (enough of) security for thee and after thee." [1]

Firdousi[2] also refers to this fact, but there is one difference between what the Shâh-nâmeh of Firdousi says, and what the letter of Tansar says. The letter of Tansar places the fact of this correspondence before Alexander's march to India, but the Shâh-nâmeh places it after his return from India.

Journal, B. B. R. A. S., Vol. I., pp. 167—191.

"Translation from the Persian, of the Kissah-i-Sanjan, or History of the Arrival and Settlement of the Parsis in India." By Lieut. E. B. Eastwick. With a few Annotations by the Rev. John Wilson, D.D., President of the Society.

It is the translation of a Persian book named Kisseh-i-Sanjân, *i.e.*, the History of Sanjân, written in verse in 1600 A.D. Mr. Eastwick had translated it at the request of Dr. Wilson, who has added a small introduction and a few foot-notes. It is a very important book, as it describes a few events in the early history of the Parsees, especially after their emigration to India. Dr. Wilson speaks of it as "the most important document of the very meagre accounts possessed by the Pârsis of the settlement of their forefathers in this country." [3] The translation is fairly accurate, but requires correction in several places. Anquetil du Perron (1761 A.D.) has referred to it in his Zend Avesta (Tome I, Part I, pp. CCCXVIII —CCCXXIII) under the title of "une petite Histoire en vers de la retraite des Perses dans l' Inde," and has given a short summary of it. The book has since been translated into Gujarâti in 1855 under the title of "કીશશે શાણજાણ અથવા તવારીખે હીંદી પારશીઆન." Eastwick's translation is, as yet, the only English translation, referred to by subsequent writers on the subject. The text of the book is now being published in Bombay by Mr. Mânockji Rustomji Unwâlâ in his Revâyet of Dâràb Hormazdyàr.

The most important event, referred to in it, is the fall of the town of Sanjân and the defeat and massacre of the Parsis at the hand of Alafkhân, a general of Sultân Mâhmud. Now, who was this Sultân Mâhmud, and when did this event occur? Dr. Wilson, in a foot-note[4] to the above translation, says, it was Sultân Mâhmud Bigarhâ who reigned in Gujarât from 1459 to 1511 A.D. But the late Sir James Campbell, in his "Bombay Gazetteer" (Vol. XIII, Part I, p. 250; Vol. IX, Pt. 2, p. 187), says that it was "Muhammad Shâh or Ala-ud-din Khilji

[1] *Ibid*, pp. 503—505. I translate from the French of Prof. Darmesteer. *Vide* my article "Alexandria and its Library" in the "East and West" of October 1904 (Vol. III No. 36 p. 1018-19). [2] Mohl V, p. 247. [3] Journal, B. B. R. A. S., I., p. 167. [4] *Ibid*, p. 182.

(1295-1315)." Sir James Campbell advances some arguments in favour of his views. But, I think, they are not valid, and that Dr. Wilson is quite correct in his view of taking the Sultân, as Sultân Mâhmud Bigarhâ (Begadâ). I do not wish to enter here, at any length, into the question. I have handled this question, at some length, in an article in the "East and West" of July, 1903 (Vol. II, No. 21), entitled "A few Events and their Dates in the Early History of the Parsees," and at full length in an article in the "Zartoshti," an Anglo-Vernacular quarterly of Bombay, in its issues of 1904 (Vol. I, Nos. 3 and 4; Vol. II, Nos. 1-2 *et seq.*). The fort of Champânir, referred to in this Kisseh, is described at some length in a paper entitled "Account of the Hill-Fort of Champaneir in Guzerat," by Capt. Miles. (Transactions, L. S. B., I, pp. 150—56, *vide* below p. 288.)

As to the particular date of the abovementioned event, Dr. Wilson gives it as 1507,[1] but I think that it was 1494 A.D.

In the text, there are the following couplets [2]:—

یکی بهدین پدید آمد در آن وقت
نبوده مثل او کس آنچنان وقت

. . . . . .

دهیود نام او چانگا بن آسا
که با بهدین همی کردی دلاسا

Eastwick has translated them thus[3]—

"In that time one among the faithful arose:
There was none to equal him in those days.

. . . . . .

Dhewud was his name, and he resembled the blessing of marriage,
For he brought encouragement to the faithful."

Here, Eastwick has not properly understood the second of these two couplets. He says in a foot-note about the whole of the passage, that it "is very obscure, and appears corrupt." [4] Again, in a foot-note on the word Dhewud, he finds fault with the text and says: "This appears to be a mistake; for, as below, the name should be Dawar." [5]

Now, the text is correct, and the passage is not obscure, as Eastwick has thought it to be. The thing is, that he has taken a proper noun in the second couplet, to be a common noun and the common noun to be a proper noun. The word دهیود which he read "Dhewud," is not a proper noun, but is a common noun, and must be read

[1] *Ibid.* [2] Mr. Mânockji Rustomji Unwâlâ's old manuscript of Dârâb Hormuzdyâr's Revâyet, folio 547b, couplets 25 and 27. Lithographed Edition, Vol. II, p. 352, couplets 33 and 35.
[3] Journal, B. B. R. A. S., I., p. 187, ll. 32-33, 36-37. [4] *Ibid*, note 1. [5] *Ibid*, note 2.

"dahyôvad", which is the same as "dahyôpat" and comes from Avesta "danghu-paiti." It means "a ruler or a chief." Again, he has taken the proper noun "Chânĝa bin Âsâ" to be a common noun, and has translated it, as "the blessing of marriage." I am at a loss to understand, how Eastwick understood the word in this way. Perhaps, he read the word—or perhaps his manuscript gave the word as چانگا شاه (Chânĝa Shâh), which is another form of the name of this personage, and which is also written in some Revâyets as جنگه شاه Jangeh Shâh. He then perhaps mistook the word for Jan-shâh or Shâh-Jan, which is used in Parsee books for 'a bride.' The real interpretation of the second couplet is "He was a leader and his name was Chânĝa bin Âsâ."

Now, a study of the dates of the chief events in the life of this Chânĝa bin Âsâ (or Chânĝa Shâh, as he is otherwise called in other books), as determined from other sources, enables us, not only to settle the question, as to who the abovenamed Sultân Mâhmud was, but also the date of the above event.

I think, that this mistake of Eastwick in his translation, *viz.*, his taking Chânĝa Shâh to be a common noun instead of a proper noun, is, to a certain extent, responsible for placing the learned author of the "Gazetteer" on a false track.[1] Had Eastwick given the name of Chânĝa Shâh in his translation, an inquisitive person like the author of the "Gazetteer," who has mentioned the name of Chânĝa Shâh in other matters, would have inquired into the history of the life of this man, and then, knowing the time when he lived, would not have conjectured that the Sultân Mâhmud was Alâ-ud-din-Khilji. The name of Chânĝa Shâh, which he knew and his date, would have prevented him from doing so. This is an instance, which shows, how a small word, if not properly translated, supplies faulty materials for history. Writers of history must look to the originals and not depend upon translations.

There are several foot-notes in this paper by Dr. Wilson, written from a Christian point of view, which are not correct, and which I need not criticise here.

Journal, B. B. R. A. S., I., pp. 293—302.

"Observations on the Bactrian and Mithraic Coins, in the Cabinet of the Bombay Branch of the Royal Asiatic Society." By James Bird, Esq.

As Mr. Bird says it was "the conquests on the Indus, made by the Greek sovereigns of Bactria, the Seleucidæ, the Parthian and Sassanian kings of Persia," that introduced into India, and especially into that part called Indo-Scythia, "a variety of coins distinguished by Mythological devices." They are "ascribed to some of the

[1] He says: "The poetical account does not name the layman who persuaded the priests to move the fire to Sanjan" (? Naôsari) (The Bombay Gazetteer, Vol. IX, Part II (1899) p. 188 n. 1.)

generals, employed under the Seleucidæ, and to the Parthian and Sassanian satraps of Persia " (Journal B. B. R. A. S. I., p. 293).

The author says [1] in this paper, on the authority of the Ràdjatarangini,[2] that, in about 319 A.D., the ruler of Ujain in Màlwà was Sriman Hersha Vikramaditya, and that he was the same as Shapur II. of Persia. He had " instituted a persecution against the Manicheans and Christians throughout his dominions."

We know from other sources, that some of the Manicheans, who had escaped to India in Shapur's time, had introduced into the country, especially into the south, many Persian coins. The Pahlavi inscriptions found in Southern India owe their existence to those Manichean refugees from Persia. For a more recent treatment of the question of the names of the deities on the Indo-Scythian coins treated in this paper, I would refer my readers to an excellent article of Dr. Aurel Stein, entitled "Zoroastrian Deities on Indo-Scythian Coins" in the Indian Antiquary (Vol. XVII, Part CCVII). Dr. Stein has re-printed this article in a separate pamphlet form in 1888. In connection with this paper, Mon. E. Druin's paper, entitled " Le Nimbe et les Signes de l'Apothéose sur les Monnaies des rois Indo-Scythes" in the ' Revue Numismatique ' (Quatrième Série Tome V, deuxieme trimestre 1901)" is worth reading. In connection with the subject of the " Kavaêm Kharenô " represented on the gold coins, especially of Huvishka (Stein's Zoroastrian Deities, p. 13) the nimbe, referred to by Mon. Druin, Prof. Wilhelm's paper on 'kharennang' (quarenaṅh) (Contribution a L'Interpretation de l'Avesta 1885, Extrait du Muséon) may be read with advantage.

Journal, B. B. R. A. S., II., pp. 151—165.

"Critical view of the Theological and Ceremonial system of Zoroaster. Translated from the French of Anquetil du Perron :—With Introductory Observations." By the Rev. J. Murray Mitchell.

In this paper, Rev. Mitchell gives an English translation of M Anquetil du Perron's article in his Zend Avesta (Tome II., pp. 592-618), entitled " Systême Céremoniel et Moral des Livres Zends et Pehlvis, considéré en lui-même, et relativement au Systême Théologique de ces mêmes Livres." The translation is preceded by a short introduction, in which Rev. Mitchell looks with suspicion to the *bona fides* of Anquetil in his estimate of the Parsee religion. He says : " Anquetil du Perron, in

[1] Journal, B. B. R. A. S., I., p 296.

[2] *Vide* " Râdjatarangini, Histoire des Rois du Kachmir ", traduite par M. Troyer, Tome III, (1852), pp. 43, 653.

his expositions of the Pàrsi religion, manifests a desire to exhibit it in as flattering a light as possible. He was naturally led to represent his own discovery in a favourable aspect, and the cutting sarcasms of Jones, Richardson, and others, who represented him as having risked his life, and wasted his time, to procure what was essentially worthless, redoubled his desire to uphold the character of the Zand-Avastâ. . . . . He earnestly labours, in the paper we now subjoin, to show that the doctrines and institutions of the Zand-Avastâ are consistent with reason ;—let the reader judge whether his success is equal to his zeal." [1] Well, the cutting sarcasms of Sir W. Jones and Richardson, had, before the time when Rev. Mitchell wrote, been shown to be in themselves worthless. They said, that Anquetil was duped by the Parsee priests of Surat, who had passed on him some later writings as the scriptures of their ancient Irân. They have been proved to be wrong, and Anquetil's estimate of the religious system of Zoroaster has been since upheld by many an impartial critic. Anquetil has erred here and there in his observations and has erred a good deal in his translations ; but, that must not detract from the correctness of his general estimate of the religion.

The study of the Avesta is interesting even to a Biblical student, not only for its moral system referred to by Anquetil, but for several other points. Prof. Jackson says on this point : "To the Biblical student, the Avesta and the religion of Zoroaster have more than one distinct point of interest. It may fairly be said that the sacred books of no other people, outside the light of the great revelation, contain a clearer grasp of the ideas, of right and wrong, or a firmer faith in the importance of the purity alike of body and soul, a more ethical conception of duty (considering the early times), or a truer, nobler, more ideal belief in the resurrection of the body, the coming of a Saviour and of the rewards and punishments hereafter for the immortal soul, than are to be found in the scriptures of Ancient Iran, illuminated by the spirit of the great teacher himself, Zoroaster." ("Avesta, the Bible of Zoroaster," in the Biblical World of June 1893, pp. 420-21.)

I may say here, that the portion of Anquetil's work, translated in this paper by Rev. Mitchell, forms a part of the translation of a larger part of his work, published under the title of "Extracts from the Narrative of Mons. Anquetil du Perron's Travels in India" by the late lamented Mr. Kavasji Edalji Kanga, whose death last March all Avesta scholars deplore so much.

[1] *Journal, B. B. R. A. S., Vol. II., pp. 154-155.*

Journal II., pp. 165--175.

"A discourse on the object and progress of investigation into Oriental Literature and Science;" read at the Anniversary Meeting of the B. B. R. A. Society, during the year 1844, by James Bird, Esq.

The learned author of this discourse inaugurated, for the first time in the history of the Society, in 1844, *i.e.*, forty years after its foundation, what he calls "the time-honoured custom of other Societies, to review at their Anniversary Meetings the intended objects and progress of their inquiries." The custom has, since, been more honoured in its breach than in its observance, and I think, that it can very advantageously be revived. In this learned discourse of his, the author, the then Secretary of the Society, while speaking of the literature of Persia gives his view, or rather sums up the view, held at the time, about the origin of Pahlavi, Pazend and Zend. Even now, after the lapse of so many years, it is worth reading, as giving the then prevalent views on the subject of these languages. The author thus refers to Sir W. Jones' theory about the Zend being "a forgery of modern times." He says: "The testimony of so ancient an author as Masudi, that the book called Asta and its commentary the Pazend were in existence in his time, establishes the comparative antiquity of the Zend-Avasta, and that the language of it is not a forgery of modern times. . . . . It is . . . more natural to conclude with Rask that Sanskrit was introduced, as a foreign language into India, from Aria or Iran, in preference to the supposition that it was brought from India into Persia."[1]

Journal, B. B. R. A. S., II., pp. 251—263.

Cuneiform Inscriptions. Translated from the eighth volume of Ritter's Geography.[2]

This article is interesting for those, who want to know, how the Irânian Cuneiform Inscriptions were, one by one, deciphered, and what great difficulties their decipherment presented. This article presents an idea of an early attempt to translate the first few lines of the Inscriptions of Darius at Behistun. This part of the inscription is written in the style of the 8th Chapter of the Yaçna, known among the modern Parsees as (જમવાની બાજ) *Jamvâni bâj, i.e.*, the prayer for saying grace before meals. It is the same, as that, which has been latterly deciphered, on the "Chalouf column", discovered by the late M. Lesseps, near the modern Suez Canal.

[1] *Journal, B. B. R. A. S., II,* p. 181.
[2] Die Erdkunde von Asian, von Karl Ritter (1846).

Journal, B. B. R. A. S., IV., pp. 216—241. *March* 1849 *and February* 1852.

Under this title the author presents two of his papers.

"Recent Investigations in Zend Literature." By the Revd. J. Murray Mitchell.

I. He had read the first paper on 22nd March 1849[1] under the title of "A brief view of some recent investigations of the Zend Avesta by German Orientalists."

II. The second paper bears no particular title. It was read on 12th February 1852, and in the Proceedings of the Meeting of that date[2] it is said to be a paper on "Zend Literature." Revd. Mitchell speaks of it as "A notice of the zealous and successful studies of two (Orientalists), whose names are already familiar—Professor Spiegel of Erlangen and Dr. Rudolph Roth."[3]

The first of these two papers[4] treats of the following papers by two German Orientalists :—

(1) "Studies on the Zend Avesta,"[5] by Dr. Spiegel.

(2) "The Legend of Feridun in India and Iran," by Dr. Roth.[6]

Revd. Mitchell gives a short description of the subjects treated by these Orientalists, and holds them, as supporting his views about Anquetil's version of the Zend Avesta and about the religious and moral system of the Parsees.

I have referred in a previous part of this paper (pp. 200-1), to Rev. Mitchell's translation of Anquetil's views on the religious system of the Parsees. He did not agree with Anquetil, in the high estimation in which he held the system. So, in this paper, he quotes with approbation, Spiegel's views about the incorrectness of Anquetil's translation. But he forgets, that, in spite of incorrectness here and there in details in the matter of translation, the estimate formed by a person like Anquetil, from the books and from his experience, may be correct. Even after 50 years of more critical and philosophical study, it is not rare, to find scholars differing much in their translations of a number of passages.

The view expressed by Spiegel, in the paper referred to, about the Pahlavi language, differs from that of Westergaard, noted in this same volume. Westergaard, in a letter dated 21st July 1851, and addressed to Dr. Wilson, expressed his opinion "founded on a critical examination of the so-called Pehlivi writings, that they are not

[1] *Vide* Extracts from the Proceedings of the Society for the meeting held on 22nd March 1849, Journal, Vol. III., Part II., No. XIII., p. 140.

[2] Journal, B. B. R. A. S. IV., p. 461.

[3] *Ibid*, p. 225.

[4] *Ibid*, pp. 216—225.

[5] *Ibid*, p. 218.

[6] *Ibid*, p. 221.

in any Sasanian language, but merely in a dialect (probably the Kirmanian) of the modern Persian, disguised by the use of an imperfect alphabet," an opinion with which Dr. Wilson concurred.[1] Spiegel, on the other hand, was of opinion, that Pahlavi belonged "to the era of the earlier Sassanian kings of Persia (from A.D. 226 onwards)" and he referred "the Pehlivi version of the Zendavesta to the same age"[2]. Spiegel's study of Pahlavi was deeper than that of Westergaard's, and his opinion has proved to be correct. The following view of Spiegel, as noted in this article, deserves more than a passing notice: "Wholly apart from its use as a translation, as a relic of the Sassanian dynasty, it (the Pahlavi literature) is possessed of much historical value. The Sassanian epoch is one of the highest importance in the history of Asia—and of Asiatic *mind*; but, unhappily, it is involved in much obscurity. The science of History may expect to receive interesting contributions from the light which will be shed on that epoch from the study of the Pehlivi version of the Zendavesta, and the works connected with it. At that period, Persia by no means secluded herself from intercourse with foreign nations. Greek and Christian influences acted powerfully on the Persian mind; and Pàrsîism, again, largely contributed to the opinions of the Gnostics and Manicheans. The Western influence acted on Persia in two modes; the one, translation of Greek writers into Persian, the other, direct contact between the Persians and the Syrian Christians who were scattered in large numbers throughout the country."[3]

Now, though the expectation of Spiegel, as to the science of History receiving interesting contributions, has not been greatly fulfilled, still, the Pahlavi literature, that has since been brought to light, has not been without its value in great many ways. The Pahlavi literature, other than the Pahlavi translations, has presented a vivid picture of the Iràanian life of the period, and has, at the same time, explained a good deal of, what we may call, the historical allusions of the Avesta. Again, it has shown, how far, that historical poem, the Shâh-nâmeh of Firdousi, has rested, in many of its episodes, on the sure grounds of old reliable materials.

As to the influence of the West on the East, *i.e.*, Persia, we know, that it is a question, on which there is much difference of opinion. The question, as to how much the East influenced the West, and the West influenced the East, is not settled. But, this much can be said, that the later influence of the West—for example, that of Greece—was, to a certain extent, a reflex of what was once remitted by the East to the West.[4] Persia had, through the Greek translations of

[1] Journal, B. B. R. A. S., IV., p. 153. [2] *Ibid*, p. 219. [3] *Ibid*. p 220.
[4] *Vide* above pp. 192-94.

its books, at the time of Alexander's conquest, given something of its own to the West, and so, if the West, as typified by Greece, gave something back to it in later Sassanian times, it was something of its own, to a great extent. In fact, it took up back, what was congenial to its own soil.

Coming to the second subject of Rev. Mitchell's first paper, *viz.*, "The Legend of Feridun in India and Iran," we find Rev. Mitchell getting rather exultant. He says: "It has been well known for a considerable time that many of the technical religious terms occurring in the Veda are reproduced in the Zendavesta. . . . . The identification of proper names, thus happily commenced by Bopp and Lassen, has been carried out by Dr. Roth, in the case of the word Feridun. . . Amid the confessedly inextricable confusion in which the primeval annals of Persia are involved, it has been fondly imagined that with him at all events we discern some traces of historic truth. . . Now, if the conclusions of the German critic be accordant with truth, Feridun . . . is no historic personage at all—he is simply one of the deities acknowledged in remote times by the Aryan race."[1] Rev. Mitchell forgets, that the mere fact of a historic person being raised by later generations, or by the people of another country, into the position and dignity of a deity, does not make him less a historic person. Persia, the country of Feridun, has not made him a deity. India has made him so. India will one day make—to a certain extent it has begun making—Her late Majesty a deity. So, will the later generations of England look to her name with suspicion? As a recent writer says: "We have before our eyes, the fact, that the worship of the dead, or of men celebrated for their power, wisdom or piety, has always, and in all ages, been one of the predominant tendencies of human nature."[2] The same writer says: "In the case of ancient profane history and tradition, it is evident that while fable and exaggeration would be almost certain to collect round the memories of celebrated persons, yet they are no proof that these persons never existed."[3]

In the second paper embodied in this article, Rev. Mitchell brings to the notice of the members of the Society, further studies of the same two abovementioned German Orientalists. Dr. Roth's article on the "Legend of Jamshid"[4] is in the same line, as that on the "Legend of Feridun" referred to above.[5]

[1] Journal, B. B. R. A. S. IV, pp. 221—222. [2] "The Worship of the Dead" by Col. J. Garnier, Preface, p. viii.

[3] *Ibid*, p. vi. [4] Journal, B, B. R. A. S., IV, p. 225.

[5] I would refer my readers for my views on Jamshed, to my essay on Jamshed, in my (જમશેદ હોમ અને આતશ) "Jamshed, Haoma and Fire."

Of the several articles of Dr. Spiegel, referred to in this paper, one is that on the "Legend of Sâm."[1]

Spiegel's treatise on the 19th Chapter of the Vendidâd, referred to here, is interesting to the Parsis, as a defence from a learned Orientalist, against the allegation, that the ancient Persians considered "Zravâna Akarana," *i.e.*, "Endless Time", as the supreme deity. "He contends with Müller, that in the proper Pârsi system, there is no place for Zaruân as the supreme deity."[2] Rev. Mitchell has given here, Dr. Spiegel's translation of a part of the 19th Chapter of the Vendidâd, which contains the words "Zravân Akarana," and has compared his translation with Mr. Frâmjee Aspandiârji's and Anquetil's translations. Dr. Haug[3] refers to this question, briefly, in his "Essays on the Parsis."[4] Mr. K. R. Cama refers twice to this subject in his "Zartoshti Abhyâs." At first[5], he refers to Dr. Spiegel's correct interpretation, referred to in this paper, and gives his views of the subject. He refers to the same subject again[6], when refuting the views of M. Adolphe Franck[7], on the sect of the Zervanites, referred to by the Armenian writer Esnick. This sect, at one time, believed in "Zravâna Akarana," but their belief has no foundation on the Avesta. The belief is also referred to in a later Persian treatise called Olmâ-i-Islâm.[8]

Among other questions, referred to in this paper, we find the following :—

1. *The influence of Judaism upon the Zoroastrian religion and vice versa.* Rev. Murray Mitchell says on this subject : "Our Orientalists are not in general disposed to attribute so much influence to Judaism in the development of the Pârsî system as the historical connexion between the Jews and Persians suggests as probable, and even necessary. The wide dissemination of Jews and Jewish opinions throughout the Roman Empire is an admitted fact . . . .

[1] Strange to say, that I had heard at Cashmere, a good deal of this hero's legend. Among this, I heard an allusion to him, which is referred to in a Pahlavi work, and to which no reference is made in a Persian book. I have referred to this matter, in my paper before our Society, entitled "Cashmere and the Ancient Persians." (B. B. R. A. S. Vol. XIX, pp. 237—248.)

[2] Journal, B. B. R. A. S., IV, p. 230. [3] "Essays on the Parsis," 2nd edition, p. 24.

[4] F. Lajard has suggested, that the "circle", found in some of the monuments of Persia, signified the Zravâna Akarana, referred to here. *Vide* in Nouveau Journal Asiatique, Tome XVI (Aout 1835), an article entitled "Sur l'emploi et la signification du *cercle* ou de la *couronne* et du *globe* dans les représentations figurées des divinités chaldéennes ou assyriennes et des divinités persanes", p. 172.

[5] No. VI, pp. 330—332. [6] No. X, pp. 90—92.

[7] *Vide* "French Views on Zoroastrianism," translated from the texts of M. Adolphe Franck and M. Jules Oppert, by Mr. F. R. Vicaji (1866).

[8] *Vide* M. Blochet's very interesting brochure on this subject entitled "Le Livre intitulé L'Oulamâ-i-Islâm" (1898), pp. 18-19, published as a number of "Revue de L'Histoire des Religions." *Vide* Fragmens relatifs à la religion de Zoroastre (1829) par M. Mohl, Oulemâ-i Islâm, pp. 1-2.

We have no reason to believe the influence of Judaism in Persia to have been less."[1]

We find, that not only Orientalists, but some of the Christian divines, have come to the conclusion, that the influence of the Persian religion has been much more over Judaism than that of the latter upon the former. As far as the Avesta is concerned, its influence upon Judaism is undoubtedly great. Possibly, some part of the later Pahlavi and Pazend literature was, to a little extent, influenced by Hebrew thoughts. As an instance of the influence of Judaism on later Pazand literature, Dr. Darmesteter[2] points to a Jewish-Persian prayer.

Among the earlier writers, who said, that Judaism was, to a certain extent, indebted to Zoroastrianism, we find the names of Bunsen and Rhodes. Among the modern writers of this view, we find Dr. Cheyne[3] and Dr. Mills[4], who admit the Zoroastrian influence to a certain extent. Dr. Kohut's book on the subject is very interesting.[5] Mr. K. R. Cama has referred to this subject in his Jartoshti Abhyâs.[6]

The question referred to in this paper, whether the doctrine of Resurrection is an original Avesta doctrine, or one borrowed by the Persians later on from the Hebrews, has been often discussed. Dr. Haug said: "It is not ascertained whether these doctrines were borrowed by the Parsis from the Jews, or by the Jews from the Parsis; very likely neither is the case, and in both these religions they seem to have sprung up independently".[7] Later on,[8] he calls this "a genuine Zoroastrian doctrine" resting on two passages of the Zamyâd Yasht.[9] Further on[10] Haug refers to Burnouf's discussion of the meaning of the words "Yavaêcha, Yavatâtaêcha," referred to by Rev. Mitchell in this paper,[11] and says: "In consequence of Burnouf's inquiries into the phrase Yavaêcha Yavatâtaêcha (which had been translated by Anquetil "till the resurrection," but which means nothing but "for ever and ever,") the existence of such a doctrine in the Zend-Avesta was lately doubted.

[1] Journal, B. B. R. A. S. IV, p. 232.

[2] "Une Prière Judéo—Persane" par James Darmesteter (1891).

[3] *Vide* his "Origin of the Psalter," pp. 271, 281, 393, &c.

[4] *Vide* his article entitled "Zoroaster and Bible" in the Nineteenth Century of January 1894 and subsequent articles in various periodicals. His article in the Nineteenth Century has been translated by Mr. Dhunjeebhoy Coorlâvâlâ into Gujarâti and published in a book form under the title of "ઝરથુશ્ત્ર અને બાઇબલ" (1894).

[5] "The part taken by the Parsi religion in the formation of Christianity and Judaism" translated from the German of the late Dr. Kohut, Bombay, 1899. *Vide* also "The Jewish Angelology and Demonology, based upon Parsism," Translated from the German of Dr. Alexander Kohut, by K. R. Cama, 1881.

[6] No VI, pp. 334—336. *Vide* my paper on "St. Michael of the Christians and Mithra of the Zoroastrians," read before the Oriental Congress at Hamburg (Journal, Anthropological Society, Vol. VI, No. 5, p. 237).

[7] Haug's Essays on the Parsis, 2nd Edition, p. 5. [8] *Ibid*, p. 216.

[9] Yt. XIX 11-12 and 89-90. [10] Haug's Essays on the Parsis, 2nd Edition, p. 312.

[11] Journal, B. B. R. A. S. IV, p. 231.

But there is not the slightest reason for doubting it, as one may convince himself from the passage quoted in p. 217, where it is clearly stated that the dead shall rise again. That the resurrection of the dead was a common belief of the Magi, long before the commencement of our era, may be learned from the statement of Theopompos. Now the question arises, had Spitama Zarathushtra already pronounced this doctrine, which is one of the chief dogmas of Christianity, and of the Jewish and Mahomedan religions, or is it of later, perhaps foreign, origin? Though in the Gathas there is no particular statement made of the resurrection of the dead, yet we find a phrase used which was afterwards always applied to signify the time of resurrection, and the restoration of all life that has been lost during the duration of creation. This is the expression *frashem kerenaon ahûm* (Yas. XXX, 9). . . According to these statements, there can be no doubt that this important doctrine is a genuine Zoroastrian dogma, which developed itself naturally from Spitama Zarathushtra's sayings. There is not the slightest trace of its being borrowed from a foreign source."[1]

Prof. Jackson also has referred to this question in his article on "The Ancient Persian Doctrine of a Future Life" (The Biblical World of August 1896, p. 157). Therein, he says: "A question may arise as to whether the Saviour-idea in Mazdaism was a tenet that was taught by Zoroaster himself, or whether it may not possibly be due to some influence of the Messianic idea in Judaism . . . A metrical fragment of the Avesta (Frag. IV. 1-4), an extract from Yasht XIII. 89 seq. and the well known passage in the Bundahishn . . . (Bd. XXX, 1 seq.), all lend their weight in ascribing this particular teaching to Zoroaster himself. The whole system of the faith appears to be built upon this tenet." He says the same thing, in his article on Resurrection in the American Oriental Society's Proceedings (April 1893, pp. XXXVIII-XXXIX). Therein he says that it "was a tenet undoubtedly inculcated by Zoroaster some centuries before the Christia era."

Dr. Cheyne[2] seems to think that the Jewish doctrine of Resurrection was borrowed from the Zoroastrians.[3]

Prof. Graetz, in his "History of the Jews,"[4] points to the following customs and beliefs, as borrowed from the Irânians by the Jews:—

1. Laws concerning purity and impurity. Graetz says:—"These laws would never have attained such far-spreading and extra-

[1] Haug's Essays on the Parsis, 2nd Ed, pp. 312-13.

[2] The Origin and Religious contents of the Psalter by Dr. Cheyne (1891), pp. 400-401.

[3] *Vide* Mr. K. R. Cama's Jartoshti Abhyâs, No. 5 pp. 288—302.

Vide my papers on "Astodân," or "A Persian Coffin said to be 3000 years old, &c.," in the Journal, Bombay Anthropological Society, Vol. I, No. 7, pp. 426—441 and on "Belief about the Future of the Soul among the ancient Egyptians and Persians," Journal, B. B. R. A. S., Vol. XIX, pp. 365—374.

[4] Vol. I., p. 414 *et seq.*

ordinary importance had it not been for the sojourn of the Judæans during so many centuries in Persia." [1]

2. "Although the Judæans resisted any alteration in their conception of the Deity, still they could not prevent many of the ideas and customs of the Persians from gaining ground among the nation. They imagined that they were adding to the glory of God, if, in imitation of the Irânians, they surrounded Him with myriads of obedient servants. . . Like the Persians the Judæans called the angels the holy watchers." [2]

3. "As the imagination of Yazatas had given the angels a Hebrew character and Hebrew names, so did it also introduce the bad spirits, or Daevas, among the Judæans. Satan was a copy of Angro-Mainyus." [3]

4. The idea of Heaven (Paradise) and Hell (Ge-Hinnom). "Each individual was permitted to accept or to reject this doctrine." [4]

5 "One belief emanating from the Iranian religion became part of the spiritual life of the Judæans, until it grew at last to be a binding dogma; it was that of the resurrection of the dead from their graves." [5]

II. One other question, referred to by Rev. Mitchell, in this paper, is that, of "The Antiquity of the Avesta." Among the advanced opponents holding opposite views on the subject during these last 10 years, we have the distinguished names of the late Dr. Darmesteter and of Rev. Dr. Mills. I have examined Dr. Darmesteter's views at some length in my paper on "The Antiquity of the Avesta," read before our Society. [6]

Journal V., pp. 77—94, 21st April 1853.

"The Ancient Iranian Mythology." A letter to the Rev. Dr. Wilson, Honorary President of the Society. By Prof. H. L. Westergaard of Copenhagen.

This paper "notices the coincidence, and at the same time discrepancy, of several of the Zendic with the Vedic legends; endeavours to trace their origin to traditions of a primitive era of physical and moral bliss, and to aspirations for a renewal of happiness both in the present and future life; and points out their subsequent corruption in the interpretation of them as historical notices of kings, heroes and prophetical personages. The oldest of these legends affords an insight into the anti-historical time, when the Japhetic nations of Iran and India began to develope their religious

[1] *Ibid*, p. 414-415. [2] *Ibid*, pp. 415-16. [3] *Ibid*, p. 416.
[4] *Ibid*, p. 417. [5] *Ibid*, p. 417-18.
[6] Journal, B. B. R. A. S., Vol. XIX, pp. 263—287. This paper has been translated into French in the "Revue de L'Histoire des Religions" of 1897.

and social existence, putting their own interpretations on the phenomena of nature and the wants of the human soul. The more modern of them, though still very ancient, mark a growing estrangement from one another of the two branches of the Arian nation, the Indian and Persian."

The question is, what is the order of evolution? Is it the one suggested by Westergaard, *i.e.*, Do these legends begin with "traditions of a primitive era of physical and moral bliss" and "with aspirations for a renewal of happiness, both in the present and future life" and end in their so-called "corruption in the interpretation of them as historical notices of kings, heroes and prophetical personages"? Or, do they begin with historical personages, and after some period, end with an interpretation of them as illustrations of moral principles? I am inclined to agree with those who take the latter view.

This paper of Prof. Westergaard, presents a few of the results of his study of comparative mythology,—a study begun long before him by Dr. Roth and others, and followed by Dr. Spiegel. We have referred (pp. 203 et seq.) to Spiegel's comparisons in this line, in our remarks on Rev. Murray Mitchell's paper, entitled "Recent Investigations in Zend Literature."[1] Roth had already said, a few years ago, as pointed out by Westergaard, that Yima was "the symbolic representation of the golden age, with all the blessings of abundance and peace."[2] Westergaard agrees with him in this view, and says something more. He says: "Yima certainly is the symbolic representation of the golden age, or (as every man has his golden age, however short it may be) the symbolical emblem of the happiest time of man, the brightest state of life, but only as far as this depends on the earthly or material well-being, furnished by the physical blessings of nature; because Yima, being, as we may remember, unable to bestow on man the holy word, or knowledge of God, he could not be the symbolical expression of that happiness which is unattainable without that knowledge. The same original idea was, in my opinion, connected by the Indians with their Yama; he, too, likewise, was a symbolical representation of the golden age, an emblem of the happiest and brightest state of man. But, though the Hindu embraced life and its blessings with as much loving attachment as all other earthly creatures, he was less ensnared by its pleasures; for his depth of thought, and serious disposition of mind, led him to form a more correct estimate of the transitory nature of earthly enjoyment. His attention was, therefore, turned to the life beyond death: it was there he sought for, and there first he found his real

[1] Abstract given in Journal, B. B. R. A. S., V., p. 385.
[2] Journal, B. B. R. A. S. IV, pp. 216-41. [3] *Ibid.* V, p. 80.

home. . . . There, and there only, he found the real golden age." [1] We have quoted Westergaard at some length, to show, that, what one can infer from this passage is this, that while the Iranian's was a practical frame of mind, the Indian's was a contemplative or dreamy frame of mind. Prof. Max Müller says about the contemplative mind of the Hindu: "The Aryan nations who pursued a north-westerly direction, stand before us in history as the principal nations of north-western Asia and Europe. They have been the prominent actors in the great drama of history, and have carried to their fullest growth all the elements of active life with which our nature is endowed. . . . His (Hindu's) mind was like the lotus leaf after a shower of rain has passed over it; his character remained the same, passive, meditative, quiet, and thoughtful. . . . The ancient Hindus were a nation of philosophers." [2]

Legends have generally a frame work or foundation of historical truth under them. In whatever light you look to the legend of the Irânian Yima or Jamshed, you find, that in the Iránian literature, he is made to act on the plane of this world. It is the Indian mind that has raised Yama to the plane of the other world. Yima was a mortal in the eye of an Iránian. It were the Indians, who exalted Yama to the higher heavens and made him a god. So, in all such cases, when you consider, whether the heroes of such Irânian legends really existed or not at one time, you must not be guided by what is said of them in the Vedic literature, but you must look to them only from the standpoint of Iránian literature. The contemplative mind of a Hindu may have latterly raised the personage to a higher plane. I have alluded to this point in my remarks on the "Legend of Feridun," referred to by Rev. Murray Mitchel, in his paper [3] based on the account of Feridun's legend sent to him by Spiegel.

The fact, that in India, some of the heroes of these legends are raised to the dignity of "gods," has led some to take the view held by Westergaard. But the ways of looking to life in both these countries are different. It is the contemplative mind of a Hindu, and it is his dreamy, speculative, philosophic thoughts that have led him to exalt these mortals into gods. But the practical mind of an Irânian has never raised them to that dignity.

Professor Jackson refers to a similar subject in a short note entitled "On Mahâ-Bhârata III, 142. 35—45, an Echo of an old Hindu-Persian legend," in the American Oriental Society's Proceedings (April 1896, Vol. XVII, pp. 185-87). Therein, he says, that in this matter "Persia may serve to throw a side-light upon the Mahâ-Bhârata (p. 185)."

[1] *Ibid.*, pp. 80-81.
[2] MaxMüller's Chips from a German Workshop (2nd Edition, 1880), Vol. I, pp. 65-66.
[3] Journal, B. B. R. A. S. IV. pp. 216-41. *Vide* supra, p. 205.

Anyhow, the whole of Westergaard's article is very interesting for those, who want to compare the picture of old Arian heroes, as given in the Irânian literature, with that given in the Indian literature. "Look to this picture and to that," and form your opinion about the question, as to how legends are evolved. His paper is, as it were, a paper on "The Evolution of Legends." He connects the several separate stories and unites them into a whole. He says: "These natural fables, which I have severally examined,—these mythological representations of the condition and movements of nature and mankind,—assumed, in the course of time, a more sensible, bodily, and human shape; and thus Jemshid, Feridun, Gershâsp merely appear as purely human kings and earthly heroes in the later traditional history of Persia. . . . . They really combine to compose one idea, being the several parts of one image, under which the ancient Irânians, twenty-five centuries or more ago, tried to represent their views of the earthly happiness and physical welfare of man, of the contending powers of nature contributive to, or destructive of, his happiness, and of the combat necessary to secure it and restore it when lost by man's own transgression."[1]

Journal, V, pp. 95-108, *20th January* 1853.

"Brief Notices of Persian and of the language called Zend." By John Romer, Esq., formerly President of the Society. Communicated by the Rev. Dr. Wilson.

In this paper, Romer tries to show, that the connections of the Persian, properly so-called, in which Firdousi and other subsequent authors wrote, with the other old languages of Irân (*viz.*, Zend, the language of the Achemenian Inscriptions, the Sassanian Pahlavi of the Inscriptions of Hâjiâbâd and other places, the Pahlavi of books, the Pazend, and the language of the Desâtir) "are exceedingly remote and insignificant, and by no means of the character long alleged by the able and zealous Orientalists of the Continent."[2]

As to the Zend, he disputes its claim to genuineness "as resting on insufficient grounds, particularly as no vestiges of it as a language ever spoken can be found; its historical connections cannot be traced; its structure and form are entirely diverse from the Persian, especially in its having inflexions, while the Persian has none; its literature is frivolous and absurd in its character; and its undoubted relations to the Sanskrit seem artificial and suspicious."[3]

Though, nearly half a century had elapsed, since Sir W. Jones doubted the authenticity of the Zend, and though philologists, like Bopp and Burnouf, had tried to prove the authenticity and antiquity of the

[1] *Ibid.*, V., p. 91.
[2] Romer's views as summed up by Wilson. Journal, B. B. R. A. S., V., p. 95.
[3] *Ibid.*, J., B. B. R. A. S., V., p. 95.

Avesta, still there were some Orientalists, who continued to doubt its authenticity and antiquity. Among those, one was Mr. Romer. He seems to have depended much upon his knowledge of modern Persian. Of that knowledge also, he does not seem to have made great use. For example, in his arguments against the antiquity of the Zend Avesta, he quotes Kennedy, who also depended for his views upon his knowledge of Persian and not upon that of Zend itself. Romer thus quotes Kennedy in his support. "But the sole authority on which the Zend and Pehlivi books depend is the tradition of the Pârsis. Before, however, these traditions can be admitted as testimony, it must be satisfactorily proved that the Zendavesta and its Pehlivi translation actually existed at the time of the Arabian conquest, and that they have been carefully preserved until the present day by the Pârsîs of Persia and India. But no proof has ever been adduced, nor has it been yet established, that the Pârsîs of either country possess any well-authenticated traditions, which ascend uninterruptedly to that event. On the contrary, the silence of Tabari and Firdausi respecting them is a strong presumption that they were not invented at the time when these writers lived."[1]

We are surprised to find from this passage, how little use, both Kennedy and Romer, have made of their knowledge of Persian, because Firdousi has not, as said by them, remained silent, but has, on the other hand, made more than one reference to the fact, that the Zendavesta was prevalent in the times of the ancient Irânian kings. For example, Firdousi carries back the existence of the Zend Avesta, even to the time of Feridun. He says[2] :—

نشست اندرآن مرز ازآن کرده بود که کندز فریدون بر آورده بود
بر آورده در کندز آتشکده همه زندواستا بزر آزده

Translation.—He took his residence there, because Feridun had built (this) Kandez. He had built a fire-temple in Kandez and had written the Zend Avesta in gold over it (*i.e.*, over its walls).

Firdousi refers to the Zend Avesta more than once (*Vide* in Mohl VII, p. 762, the word Zend Avesta). Again, Tabari also is not silent over this matter. He speaks of Zoroaster bringing the Zend Avesta in the court of King Gushtâsp.[3]

Again, Firdousi now and then speaks of the Pahlavi language, and gives the Pahlavi renderings of some of the words he uses. For example, while speaking of Zohâk, he refers to his other name, Baêvar-

[1] *Ibid.*, p. 100. [2] Mohl IV., p. 22, ll. 222-23 [3] Tabari par Zotenberg I., pp. 499-500. "Il leur apporta un livre qu'ils appellent Zendavesta" (p. 499). Il apporta le Zendavesta" (p. 500). Even Maçoudi speaks of the Zend Avesta as Besta (Maçoudi par B. de Meynard II., pp. 124-126, 167-68).

asp, and explains, what it means in Pahlavi.[1] Thus, we see, that both Firdousi and Tabari are not silent about the Zend Avesta and the Pahlavi.

Again, Romer's and Kennedy's belief about the modern Persian, that "it dates from remote antiquity" and is "in exactly the same state at the present day as it was three thousand years ago,"[2] may now-a-days be taken as a myth. There are several other statements of that kind in the paper. Mr. K. R. Cama has refuted, in his (જરતોશ્તી અભ્યાસ) Jartoshti Abhyâs[3] (*i.e.*, Zoroastrian Studies), some of the views of Romer expressed in this paper, and also those of Kennedy[4] on the subject of the Zend language.

Dr. Wilson had relinquished his early impressions, about the Zend Avesta being a fabrication, and was, later on, satisfied, that it was genuine. Romer hopes that he may reconsider the matter and come back to his earlier impressions. He says: "It is to be regretted that Dr. Wilson, remembering Kennedy's filiation of certain languages from Babylonian or Sanskrit, to the exclusion of Persian, did not abide by and work out his earliest impressions as to whence the fabricators of Zend drew the materials for their work. But as he has relinquished faith in the authenticity of Pehlivi, as will appear presently, he may possibly undertake the task of a careful re-examination of the points which have satisfied him as to the genuineness of Zend."[5]

With reference to this hope, to reconsider his views, Dr. Wilson states in his remarks on this paper, that his views of the Zend remained unchanged and were "founded, not only on the analogies which it bears to most of the languages of the Indo-Germanic family, both near and remote, but also on various, though brief, geographical and historical allusions which it contains, and on certain analogies, and at the same time antagonisms, to the oldest forms of Hinduism, which it expresses."[6]

We find from a subsequent volume of the Journal of our Society (Vol. VI., Abstract of the Society's Proceedings, 10th September 1857, p. xxxviii), that Romer had, later on, published a paper, entitled "The Pahlavi of the Zend Avesta" in French in the *Revue de l'Orient*. In a letter dated 18th July 1857, with which he sends a copy of that Journal to our Society, he repeats his views and says: "It may not be doubted that *remains* of writings extant in the fifth century, when the Armenian Bishop Essick carried on a religious controversy with the Persian Magi, have, as shown by their agreement, furnished materials for the composition of some parts of the sacred books of the Parsis,

[1] Mohl I., p. 56. [2] J., B. B. R. A. S., V., p. 97. [3] No. II., pp. 52-58.

[4] *Vide* Kennedy's "Researches into the Origin and Affinity of the Principal Languages of Asia and Europe" (1828), pp. 159-92.

[5] Journal, B. B. R. A. S., V., p. 102. [6] *Ibid.*, p. 96.

whilst it is manifest, by the testimony of undisputed facts, that the languages named Zend and Pahlavi, in which these books are written, are artificial, not genuine, original, or indigenous tongues, at any time spoken by any people or nation known to history. At this conviction I have arrived after diligent, but, from circumstances, somewhat desultory search for truth."

Books of Mahomedan history have said, that Caliph Omar had ordered the destruction of all Parsee books. The Parsees say, that Alexander the Great also had done the same. Romer attributes this, to the ignorance of historical facts among the Parsees of his time, and thinks that they gradually transferred the event, which happened at one time (the time of Arabian Conquest), to another time (the time of Macedonian Conquest). He says: "By the modern Pârsîs, however, whose notions of history may be judged by the fact, this devastation of the learning and religious books of their ancestors is attributed to Alexander."[1]

Well, it is not a case of transference of an event from one time to another. As a matter of fact, the event happened at both the times. The Parsees have the authority of their ancient Pahlavi books[2], some of them written before the Arab Conquest, to say that Alexander destroyed their old books. He burnt one of their big State libraries, and his Greeks carried away, for translation, most of the books of another library. Their Pahlavi books speak of this destruction in Alexander's time, and the Mahomedan books speak of the destruction at the time of the Arab conquest.

Journal, B. B. R. A. S., V., pp. 478-91. *April* 1855.

"Researches and Discoveries in Assyria and Babylonia." By Sir H. C. Rawlinson.

This is not a regular paper, but the report of a brief *vivâ voce* lecture on "The Results of Recent Discovery in Assyria and Babylonia,"[3] by Sir Henry Rawlinson, at a meeting, presided over by Lord Elphinstone, the then Governor of Bombay. The results of this discovery, he said, led to "an inquiry which involved the restoration of the history of Western Asia from the Patriarchal ages to the time of Cyrus."[4]

[1] *Ibid.*, p. 56.

[2] Dinkard, Bk. III, Haug's Introduction to "An Old Zand Pahlavi Glossary" by Dastur Dr. Hoshengji, pp. xxxi-xxxviii. West's Dinkard, S. B. E., Vol. XXXVII., Introduction, pp. xxx—xxxi. Dinkard, Bk. IV., pp. 412-13. Ardâi Virâf-Nâmeh, Chap. I, 1-15. Tansar's letter to the King of Tabaristân, Journal Asiatique, Neuvième Série, Tome III, (1894), p. 212 (Iskander az ketâb i din i mâ dvâzdeh hazâr pust gâv besukht) p. 516. *Vide* my Aiyâdgâr-i-Zarirân, &c., pp. 55 and 134-35. For the destruction of Parsee books by the Arabs, *vide* my article entitled "Alexandria and its Library" in the *East and West* of October 1904 (Vol. III, No. 36), pp. 1024-25.

[3] Journal, B. B. R. A. S., Vol. V., p. 478. [4] *Ibid.*

The Society was very fortunate in hearing this discourse from the lips of that very great man, who has shed a lustre upon the names of great English discoverers and travellers in Western Asia. Sir Henry Rawlinson illustrated his lecture, by exhibiting on the table of the Society, before he took them to England, " a collection of antiquities which he had lately obtained in Chaldea, Assyria and Babylonia. . . . They . . . were intended to illustrate three distinct periods of history. I. The most ancient class was Chaldean ; II. the second was Assyrian ; III. and the third was Babylonian." [1] Some of these antiquities seem to have been left by Rawlinson in the Museum of our Society. I will refer to them later on.

I. The Assyrian monuments showed the interval between Ismi-Dagon of the known Chaldean kings and Senacherib to be 1150 years. This Ismi-Dagon, however, was not the first monarch of the time, being preceded by several others, one of whom was Kadur Mapula, who was identified with the Chedorlaomer of the Scriptures.

II. The second class of relics exhibited " belonged to the Assyrian period, which extended from the thirteenth century B. C. to the capture of Nineveh in about B. C. 625 . . . . . During the long period of Chaldean supremacy, Assyria occupied a very subordinate place in the civil polity of the East . . . . It was not probable that the Assyrians, like the Persians of a later age, had made a sudden stride from dependence to universal dominion . . . . . It was at the commencement of the 9th century B. C., shortly after the building of Samaria, that the Assyrians first undertook the subjugation of the countries on the Mediterranean ; and from that period to the extinction of the empire, the annals of Nineveh, running in a parallel line with Jewish history, presented a series of notices, which established in the most conclusive manner the authenticity of the Hebrew Scriptures." [2]

We note in Rawlinson's description of the monuments of the Assyrian empire, that some of the rulers of that dynasty mutilated and defaced the monuments of their predecessors. I think, that Darius, the Achemenian king, must have become aware of this disgraceful conduct on the part of some of the kings of the dynasties and of the countries, who had, at one time, held sway over his country, and, it is for this reason, that he was so careful for inscribing his exploits on the mountain of Behistun, at a height not easily accessible. Not only that, but he blessed, in the best way possible, and in the spirit of some of the benedictions of the Avesta, those who looked after, and took care of his inscriptions, and cursed, in the worst way possible, and also in the spirit and in the language of some passages of the Avesta, those who muti-

[1] *Ibid.* [2] Journal, B. B. R. A. S., V., pp. 4-0-80.

lated his inscriptions. Here is an instance of his benediction and curse for those, who preserved, and for those, who destroyed his inscriptions. We give these in the words of the translation of Rawlinson himself.[1]

He thus blesses those, who may bring his tablets to the notice of the public instead of concealing them.

"If thou publish this tablet to the world, Ormazd shall be a friend to thee, and may thy offspring be numerous, and may thou be long-lived."[2]

He thus curses those who may conceal his records: "If thou shalt conceal this record, thou shalt not be thyself recorded, may Ormazd be thy enemy, and may thou be childless."[3]

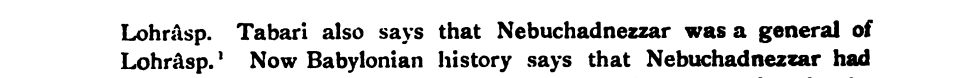
Among the relics, the most important were, according to Rawlinson, those of the time of Asshur-bani-pal, and they were "the inscribed clay tablets of baked clay forming portions of the Royal Library. The number of these tablets already exhumed could not be less than 10,000, and they appeared to embrace every branch of science known to the ancient Assyrians. They were especially valuable in affording explanations of the Assyrian system of writing, one class of them . . . . . showing how the original pictorial figures had been degraded to characters, while others contained tables expressing the different syllabic values which were attached to each character, and a third class again presented elaborate lists of all the simple and compound ideographs of the language with their phonetic equivalents . . . . Without their aid . . . . the inscriptions would have continued to the present time to be for the most part unintelligible."[4]

III. Coming to the Babylonian period of history, Rawlinson exhibited some original relics of this period, and said that "the united armies of the Medes and Babylonians, defeated, in about B.C. 625, the last king of Nineveh, Asshur-ebid-ilut."[5] Most of the Babylonian relics in the museums of Europe belonged to Nebuchadnezzar[6] (the son of Nabopolassar, who first won the victory over the Assyrians, and founded the Babylonian rule) who came to throne in B.C. 606.

Now, we find from Persian books, that this Nebuchadnezzar was a general of king Lohrâsp, the Aurvat-aspa of the Avesta, the father of Gushtâsp, in whose reign Zoroaster is said to have flourished. Maçoudi[7] says, that, according to some, he was a lieutenant of

[1] Journal of the Royal Asiatic Society, Vol. X. Part III. (1847), pp. 250-251, *cf.* below p. 221.
[2] *Ibid*, p. 250, Behistun Inscriptions, Column IV, par. 10. [3] *Ibid*, p. 251, Col. IV. par. 12.
[4] Journal, B. B. R. A. S., V., pp. 483-484. [5] *Ibid*, p. 484.
[6] The Bûkht-Narshih of the Dinkard (Bk. V. ch. I. 4.) S. B. E., Vol. XLVII. 120.
[7] Maçoudi traduit par Barbier de Meynard I., p. 117. He further says:—"Plusieurs auteurs bien instruits de l'histoire de la Perse prétendent que Bokht-Nassar (Nebuchadnessar) fut le *merzebân* (مرزبان) de Bohrasf (Lohrâsp), dans l'Irak et l'Occident, qu'il envahit la Sy prit Jérusalem et emmena les Israélites en captivité (*Ibid*, II, pp. 121-1 2.

Lohrâsp. Tabari also says that Nebuchadnezzar was a general of Lohrâsp.[1] Now Babylonian history says that Nebuchadnezzar had destroyed Jerusalem. We have a reference to its destruction in the Palhavi Minokherad, but, there, we do not find the name of Nebuchadnezzar as that of the destroyer of Jerusalem, but that of king Lohrâsp, whose general he was. The Minokherad says of king Lohrâsp (Kai Lohrâsp) :—



Auriselam-i-Yahudân barâ afrunt va Yahudân vashûptê va pargandeh kard, *i.e.*, He destroyed the Jerusalem of the Jews, and dispersed and scattered the Jews. (Dastur D. P. Sanjana's Text, p. 47, Chap. XXVII, West, S. B. E., XXIV, p. 65. *Vide* Mr. Louis H. Gray's article "Kai Lohrasp and Nebuchadnezzar" in "Wiener Zeitschrift fur die Kunde des Morganlandes" of 1904. pp. 291-98.)

Rawlinson then describes the ruins of the "Temple of the Seven Spheres," which he had excavated at the ruin named Birs Nimrud, which was situated in the vicinity of Babylon, and which some suspected to be the ruins of the Tower of Babel. The temple was "laid out in conformity with the Chaldean Planetary system, seven stages being erected one above the other, according to the order of the seven planets, and their stages being coloured after the hue of the planets to which they were respectively dedicated. Thus the lower stage belonging to Saturn was black ; the second sacred to Jupiter was orange ; the third or that of Mars, was red ; the fourth of the Sun, golden ; the fifth of Venus, white ; the sixth, of Mercury, blue ; and the seventh, of the Moon, a silvery green.[2] This temple was "built by King Merodoch-adan-akhi at the close of the 12th Century B.C."[3] and repaired by Nebuchadnezzar in about B.C. 580.

Then Rawlinson draws special attention to "an isolated example . . totally at variance with ancient usage"[4] wherein "two kings reigned at the same time in Babylon."[5] Nabodius, the father, had raised his son Bel-shar-ezer (Belshazzar of Daniel) to the throne during his lifetime.

We note with satisfaction, that Rawlinson acknowledges in his lecture his obligations for the aid he had received from our Society's "extensive library."[6]

The great importance, attached to Rawlinson's discoveries and researches at the time by devout Christians, was thus expressed by

[1] Tabari par Zotenberg I. pp. 491-492. Partie, I., Chap. CV.
[2] Journal, B. B. R. A. S., Vol. V., p. 485. [3] *Ibid.*
[4] *Ibid*, p. 489. [5] *Ibid.* [6] *Ibid*, p. 489.

Dr. Wilson at the time. "The great fact, that they went so far as they did to corroborate and illustrate the Hebrew scriptures, tended much to the confirmation and extended appreciation of those historical records, which, originally written by the pen of inspiration, were so dear to all our hearts."[1]

The Parsis attach the same importance to Rawlinson's discoveries from their point of view. These discoveries bring to vivid light, the history of their Achemenian kings, and supply materials to judge for them, in addition to the writings of Herodotus and other classical writers. They give us some clear glimpses into their religion.

Whether these Achemenian kings were real Zoroastrians or not, is a question of some difference of opinion. The general opinion is, that they were Zoroastrians. Among those, who hold that the religion of the Achemenians was different from that taught by the Avesta and observed by the Sassanians, though they all adored Ahura Mazda, we find the names of Spiegel, Harlez, Casartelli and several others.

The late M. Harlez, in the introduction to his "Avesta, Livre Sacré du Zoroastisme"[2], says, that the two religions were separate. He sa "on pense généralement que l'Avesta était déjà la code religieux de l'empire de Darius . . . . Un examen approfondi de la matière nous autorise, pensons nous, à affirmer que rien ne justifie cette assimilation, que tous les faits concourent à en démontrer la fausseté"[3] We have a separate article from M. Harlez on the subject, entitled "La religion persane sous les Achéménides."

Rev. Dr. Casartelli's paper[4] on the subject is worth reading. He presents a summary of the religious ideas—both dogmatic and moral —expressed in the Achemenian inscriptions,[5] and leaves the readers to judge for themselves. He himself seems to be of opinion, that the Achemenian religion is not the same as the Zoroastrian. The chief ground, on which he seems to rest, is the silence observed in the inscriptions, about several doctrines characteristic of the Zoroastrian religion, but, he very wisely adds, that silence in such matters is not a safe guide. "Cependant, il ne faut pas oublier qu'il est souvent dangereux d' insister trop sur les arguments *a silentio*, et qu'il convient de les employer avec beaucoup de circonspection."[6]

[1] *Ibid*, p. 491. [2] Introduction, pp. IX—XVIII. [3] *Ibid*, p. 9.

[4] "La Religion des Rois Achéménides d' aprés leurs Inscriptions" (1895) read before the hird Scientific International Congress of the Catholics (Congrés Scientifique International des Catholiques) held at Brussels from 3rd to 8th September 1894.

[5] *Ibid*, p. 4. [6] *Ibid*, p. 13.

Dr. West is of opinion, that the religion of the Achemenians is the same as that of the Zoroastrians. He calls the Avesta, as we have them now, "the last remnants of the faith held by Cyrus . . . . scattered fragments of the creed professed by Darius in his inscriptions, when he attributes his successes to 'the will of Aûramazdâ'."[1]

Prof. Jackson seems to be of opinion, that the later Achemenians were Zoroastrians.[2] His paper on "The Religion of the Achaemenian Kings"[3] is very interesting for a study of this question. The object of that paper is to undertake a research on the subject "not with the expectation of making clear all points connected with the Achaemenian faith, nor with the idea of determining whether the Achaemenidae were true Zoroastrians or not; but the investigation is made with an eye to bringing together the material relating to the Achaemenian creed as fully as possible, and with a hope that perhaps some hints may be given to students with regard to the relation of the Ancient Persian kings to Zoroastrianism."[4]

Dr. Jackson's pupil, Dr. Gray, examines the question, in the appendix to his teacher's paper, from the non-Irânian Inscriptions. He thinks that Cyrus was "a *daêvayasnian* and not a *mazdayasnian*"[5] and that "Cambyses can scarcely be regarded as a Zoroastrian."[6] With regard to Darius, he has some reluctance "to consider him a genuine Zoroastrian."[7] Dr. Gray finishes by saying, that, "A conclusion as to the religion of the Achaemenians drawn solely from a study of their non-Iranian inscriptions seems hardly favourable to the view that these monarchs were Zoroastrians. But an exact decision cannot be reached from such texts alone. Only by a synthesis of all data on this mooted problem can we hope even to approximate the truth."[8]

I have treated this subject in a short paper before the "Zarthoshti-dinni-khol-Karnâri-Mandli."[9] The scholars, who have treated this subject, have not paid any special attention to the forms of prayer, adopted by Darius in his Inscriptions. I think, that the following words of prayer, used by Darius, have their very close parallels in the Avesta, and

[1] S. B. E., Vol. V, Introduction, p. 9.

[2] Zoroaster, the Prophet of Ancient Iran, pp. 134, 160, 172.

[3] "The Religion of the Achaemenian Kings. First Series. The Religion according to the Inscriptions. With an Appendix by Dr. Louis H. Gray." From the Journal of the American Oriental Society, Vol. XXI, 1900, pp. 160-84.

[4] *Ibid*, pp. 160-61.

[5] *Ibid*, p. 178.

[6] *Ibid*, p. 179.

[7] *Ibid*, p. 180.

[8] *Ibid*, p. 184.

[9] *Vide* my ઝરાની વિષયો, ભાગ ત્રીજો. Iranian Essays, Part III, pp. 204-20.

they show, that Darius had, as a Zoroastrian, adopted its style from the Avesta Scriptures.

Darius's Inscription.[1]	Avesta.[2]
Baga wazarka Auramazdâ hya imâm bumim adâ, hya awam asmânam adâ, hya martiyam adâ, hya shiyâtim adâ martiyahyâ.	Ithâ ât yazamaidê Ahurem Mazdâm yê gâmchâ ashemchâdât, apaschâ dât, urvarâoschâ vanguhîsh raôchâoschâ dât bumîmchâ vîspâchâ vohû.
Translation.	Translation.
"The Great God Ormazd, (he it was) who gave this earth, who gave that heaven, who gave mankind, who gave life to mankind."[1]	"Here praise I now Ahura-Mazda, who has created[3] the cattle, who has created purity,[4] the water and the good trees, who created the splendour of light, the earth, and all good."[5]

Again, compare the words of the curse, used by Darius in his Inscriptions with those in the Avesta.

Inscriptions.[6]	Avesta.[7]
"If from injury thou mayest not preserve them, may Ormazd be thy enemy, and mayest thou be childless; and that which thou mayest do, may Ormazd spoil for thee."	"Mayest thou remain without posterity, ever continuing of evil report."[8]

The discoveries of Rawlinson in the matter of the Irânian Cuneiform Inscriptions, had greatly drawn the attention of the Parsis here. The result was, that the Trustees of the Sir Jamsetjee Jejeebhoy Translation Fund, had, on the 16th of August 1858, advertised for a Prize Essay, in Gujarâti, on the subject of the decipherment and translation of these Inscriptions. The prize (Rs. 500) was won by the late Mr. Jehangier Burjorji Vâchâ, who was, for several years, the Honorary Auditor of our Society. It was published, in 1863, under the title of "ઈરાની ખીલા શેકી તખતીઓ વીશે ઊરોપીઅન ગરંથકારોએ કરેલી શોધ" *i.e.* "The Discoveries by Europeans on Irânian Cuneiform Inscriptions."

[1] At Naksh-i-Rustam. Rawlinson, Journal, R. A. S., Vol. X, Part III, pp. 291. *Vide* also the inscription on the pilasters of the palace of Xerxes. (*Ibid*, pp. 323-24).
[2] Yaçna, Chap. V, 1., XXXVII, 1. [3] *Dâd.* lit. gave.
[4] Asha may mean flour, *i.e.*, corn. [5] Spiegel, Bleeck's Translation, Vol. II, p. 97.
[6] Behistun Inscriptions, Col. IV, par 17, Journal, R. A. S., Vol. X, Part III, p. 256. *Vide* also Col. IV, Par. 11, p. 251.
[7] Yaçna, Chap. XI, 1, 3. [8] Spiegel, Bleeck's translation, Vol. II, p. 60.

Mr. K. R. Cama also has written two papers, in his Jartoshti Abhyâs,[1] under the head of અસ્તોદાન (Astodân), on the subject of some of these inscriptions. One special feature of one of Mr. Cama's papers is, that he has rendered one[2] of the Cuneiform Inscriptions into the Avesta[3] language, to show, that both the languages are similar, or, as it were, sister languages. I find, that Dr. Geldner has latterly followed the same course, in his article on "Persian (Iránian) languages" in the Encyclopædia Britannica,[4] to show that the Cuneiform language "is almost as antique as Zend, with which it has many points in common."[5] Dr. Geldner also, has taken the same inscription of Darius for his rendering into the Avesta. He has treated only a small part, while Mr. Cama has treated a large part of the inscription. Their renderings differ in this, that while Mr. Cama has tried to reproduce the Avesta in the phraseology of the Avesta itself, and so, has coined some of the words, Dr. Geldner has used only the Avesta words, found in the extant Avesta. For example, for the Cuneiform word hya (*i.e.*, who), Mr. Cama has coined a similar word hyô (𐬵𐬀𐬌), while Dr. Geldner has given the word yô (𐬌𐬀𐬌), which is actually in use. Dr. C. Kossowicz gives the rendering of Mr. Cama in his book of Inscriptions. (Palæo-Persicæ Achæmenidarum (1872) Part II, Interpretatio et Commentarii p. 82).

Journal, B. B. R. A. S. V, pp. 492-96. 11*th October* 1855.

"On the Avesta, and the Zend and Pahlavi languages." By Prof. Spiegel, in a letter dated 17th May 1855, to the Rev. J. Murray Mitchell.

In this paper, Prof. Spiegel, at first, refers to the views of Mr. Romer, expressed in his paper, read before the Society on 20th January 1853 under the title of "Brief Notices of Persian and of the language called Zend," and referred to by me above (pp. 212-15). Romer, as I have pointed out above, did not consider Zend as a genuine language. He did not acknowledge "the rules of comparative grammar, which are laid down in the well-known works of Professor Bopp"[6] which formed the "basis of the researches of M. Burnouf and Colonel Rawlinson"[7] and of Spiegel. So the principles, on which Romer and Spiegel acted, differed. Spiegel, therefore, does not enter into any discussion with Mr. Romer, but gives his own "views on the languages of Persia and their relations to each other."[8] As Spiegel's views sum up the prevalent views of his school, it is worth giving them here briefly in his own words. At first he speaks about the Avesta.

[1] No. IV., pp. 173-201. No. V., pp. 241-56.
[2] The inscription of Darius at Naksh-i-Rustam.
[3] Jartoshti Abhyâs, No. V., pp. 247-49. [4] Vol. XVIII. (9th edition), p. 654. [5] *Ibid.* Col. 2nd.
[6] Journal, B. B. R. A. S., Vol. V, p. 492. [7] *Ibid.* [8] *Ibid.*

"All the Oriental scholars agree that there exists a close affinity between the old Persian, the Zend—or, as I am inclined to call it, according to M. Oppert's proposition, the old Bactrian—and the Sanskrit; and the only difference exists with reference to the antiquity of the old Bactrian. Professor Burnouf takes it to be a very old language, and maintains that not the language only, but even the literary productions of the Pârsis in it, belong to a time not so much later than that in which the language of the Vedas was spoken. Burnouf's opinion has been adopted by almost all the continental scholars. Colonel Rawlinson, on the contrary, assures us that Burnouf's arguments have altogether failed to convince him of the close affinity between the Vedic Sanskrit and the old Bactrian, and he maintains that the Achæmenian dialect is the parent of the language of the Avesta. For my own part, although I do not deny that there are fragments of very old writings incorporated in the Avesta, I am inclined to side with Col. Rawlinson, in so far that I presume the Avesta to have been written down, as a whole, in a period much later than the reign of Xerxes or Darius. The comparative purity of the language is easily accounted for, for it is a well-known fact that language degenerates by long usage, and that literary pursuits have by no means a favourable influence on the language itself. Now the old Bactrians were, as Strabo testifies, but little better than Nomads, and therefore by no means a literary nation. The art of writing was entirely unknown or at least very little used, in Bactria; in the old times, before the invasion of Alexander, all the literary compositions were retained by memory. In the Avesta itself writing is never mentioned, but it is always enjoined to keep the single parts of it in memory and to recite them. Therefore, I think, the Avesta must have been written down at a comparatively late period, after the invasion of Alexander. . . . . I do not deny that a good many parts of the book are old, and must have been current a considerable time before they were committed to writing. In many and essential points the precepts of the Avesta entirely agree with the manners and institutions of the old Persians as related to us by the classical writers. Only one must not expect that everything should be alike. The fatherland of the Avesta, as is generally believed for weighty reasons, is to be sought for in the neighbourhood of Bactria, and the difference of the country accounts for the difference of religious and political institutions, even if these, taken as a whole, were nearly the same."[1]

"At what time and how these religious writings of the old Bactrians first extended their influence beyond their native boundaries,

[1] Journal, B. B. R. A. S. V., pp. 493-94.

and were accepted as the sacred writings of the western part of Persia, I cannot tell."[1]

The latest consensus of opinion on the subject of the relation, in which the Avesta stands to Sanskrit, and on the subject of its antiquity, seems to be that, summed up by Prof. Geldner, in his article on the "Language and Literature of Persia" in the last edition of Encyclopædia Brittanica.[2] We know, that scholars, like the late M. Harlez[3] and M. Darmesteter[4] have differed from Dr. Geldner's views,[5] but Geldner's are the generally accepted views, which have found a supporter in another well-known German scholar, Dr. Geiger. Dr. Geldner's words are worth quoting here, as giving the general views prevalent at present.

"Not only amongst Iranian languages, but amongst all the languages of the Indo-European group, Zend takes one of the very highest places in importance for the comparative philologist. In age it almost rivals Sanskrit; in primitiveness it surpasses that language in many points; it is inferior only in respect of its less extensive literature. . . . . The view which became current through Anquetil du Perron that the Avesta is throughout the work of Zoroaster, the founder of the religion, has long been abandoned as untenable. But the opposite view, which is now frequently accepted, that not a single word in the book can lay claim to the authorship of Zoroaster, also appears, on closer study, too sweeping. In the Avesta two stages of the language are plainly distinguishable . . . . The older is represented in but a small part of the whole work, the so-called Gâthâs or songs. . . . These Gâthâs are what they claim to be, and what they are honoured in the whole Avesta as being,—the actual productions of the prophet himself or of his time. They bear in themselves irrefutable proofs of their authenticity, bringing us face to face not with the Zoroaster of the legends but with a real person, announcing a new doctrine and way of salvation, no supernatural Being assured of victory, as he is represented in later times, but a mere man, often himself despairing of his final success, and struggling not with spirits and demons but with human conflicts of every sort, in the midst of a society of fellow-believers which was yet feeble and in its earliest infancy. It is almost impossible that a much later period could have produced such unpretentious and almost depreciatory representations of the deeds and personality of the prophet; certainly nothing of the kind is found

[1] *Ibid*, p. 494. [2] 9th edition. Vol. XVIII., pp. 653-54.

[3] The Age of the Avesta. Journal of the Royal Asiatic Society, Vol. XVII, Pt. III.

[4] Le Zend Avesta, Tome III, Introduction, pp. vii-lvii. Chaps. I—IV. S. B. E., Vol. IV. The Vendidâd, 2nd edition. Introduction.

[5] *Vide* Prof. Wilhelm's Etudes Avestiques I. La Critique et L'Exégèse de l'Avesta (1886).

outside the Gâthâs. If, then, the Gâthâs reach back to the time of Zoroaster, and he himself, according to the most probable estimate, lived as early as the fourteenth century B. C., the oldest component parts of the Avesta are hardly inferior in age to the oldest Vedic hymns."[1]

Coming to the Pahlavi language, Spiegel says, that it is considered "as a forgery by many learned men ; and this opinion is not wholly without foundation, but certainly much exaggerated.[2] That it is exaggerated, is proved by the fact, that the language of the coins of the late Sassanian kings is shown to be the same as the Pahlavi, "in which the translation of the Avesta is written."[3] So it must be a spoken language at that time. But, to this, it is objected, that the Pahlavi contains a good number of Arabic words, a fact which shows, that the language is not as old as that of the Sassanian times, but is one of later date, *i.e.*, of the time after the Arab conquest. To this objection, Spiegel replies, that there are no Arabic words "in the genuine old Pahlavi writings, *viz.*, the translations of the Vendidâd and the Yaçna."[4] Anquetil gives, in a column in the second volume of his Zend Avesta (pp. 433-521), a glossary of Zend words, with their Pahlavi equivalents in the second column and their French equivalents as rendered from the Persian or Arabic equivalents given by his tutor, in the third column. Now, in this second column of Pahlavi equivalents, some Arabic words are found, but Spiegel attributes their presence to an inadvertance on the part of Anquetil, in placing, while preparing his orignal list, the Persian or Arabic equivalents in the second (Pahlavi) column instead of in the third. "In removing the Arabic words," he says, "we remove at the same time the principal reason for doubting the authenticity and the age of the language."[5]

Again, there are a number of Semitic words in the Pahlavi which are similar to Arabic. But they "belong to an Armaic dialect. That the Armaic was spoken in the times of the Sasanian kings and understood by themselves, is a well-known fact."[6]

Again, the authenticity of the Pahlavi was doubted on the ground "that the Irânian words in it, as well as the grammatical structure itself, are so very like to the Persian."[7] Spiegel's answer to this objection is, that "a large number of Persian words, gleaned from the earlier Armenian authors, show satisfactorily enough, that, so early as the third century of our era, the Persian language was nearly on the same level with the language of Firdosi."[8] But, notwithstanding all this, Spiegel is of opinion, that the Pahlavi language was never spoken "in the form we have it before us. Armaic words could

[1] Encyc. Britt. (9th edition), XVIII, pp. 653, 654. [2] Journal, B. B. R. A. S., V, p. 494.
[3] *Ibid.* [4] *Ibid.* [5] *Ibid.* [6] *Ibid*, p. 495. [7] *Ibid.* [8] *Ibid*, p. 495.

never be mixed in that manner in any living language. It is merely the language of books and . . . the official style in the edicts of the later Sasanian kings."[1]

Now, in what part of the country, the Pahlavi had its origin? It was in Sevâd, the modern Irak Arabi, whose inhabitants are reported by Ibn Mokaffa, a Parsi convert to Mahomedanism, to have "used in their correspondence a kind of style where Persian and Syriac were mixed together."[2] "This country was inhabited by a mixed population, partly Persians, partly Nabatæans. (The Nabatæans spoke a corrupted Armaic dialect). Both languages, the Armaic and the Persian, were therefore known to the people of that country; the Armaic was, moreover, the medium by which the literary and commercial communications of Persia with the western provinces were maintained."[3]

In support of this statement, Spiegel refers to the similar words of the Pahlavi, which, he says, belong not only to the Armaic tongue "but also to the eastern branch of it (to which the Nabatæans belonged, according to the testimony of Barhebræus and other Syriac grammarians) . . . . . The Persians were in the habit of visiting the Syriac Academy at Edessa and got all their learning from the Syrians."[4]

"After the downfall of the Sasanian Empire, not only the old Persian religion declined, but the high authority of Armaic learning also ceased, and was soon supplanted by the Arabic tongue and literature. The bulk of the Persian nation was converted to Islamism, and even the few Pârsîs who remained in Persia forgot by degrees the spelling of the Armaic words, and, only anxious to retain the signification of the word, they pronounced the Persian word instead of the Armaic one. For instance, if they found written in their text the Armaic word *lahma*, "bread," they pronounced *nân*, the Persian synonym for it. By this fact is explained how the Pârsîs could ever forget the right spelling of the Armaic words in Palhavi. It is again Ibn Mokaffa who makes us aware of the proceeding just mentioned."[5]

With reference to the writer, Barhebræus, referred to by Spiegel, I may draw the attention of my readers to his work, recently translated and published, by Dr. Budge, under the name of "Oriental Wit and Wisdom." This book shows, that the author was much conversant with Persian literature. He gives several Persian tales and sayings.[6]

[1] *Ibid*, p. 495. [2] *Ibid*. [3] *Ibid*, p. 495. [4] *Ibid*, p. 496.

[5] *Ibid*, p. 496. *Vide* Mr. K. R. Cama's Jartoshti Abhyâs, No. VI, pp. 361-64, for his views on the meaning of the words Pahlavi and Huzvâresh,

[6] I have published, in Gujarâti, in the columns of the Nur-i-Elam, a local monthly periodical, a few extracts from this book, in articles, entitled "બાર હીબરેઉસે બાદશાહેલી ઇરાની દાનાઓની શીખામણ and યુનાની દાનાઓની શીખામણો." (The Nur-i-Elam of April and May 1900, Vol. XXX, Nos. 4 and 5.)

Journal, B. B. R. A. S., Vol. V, pp. 497-520. *22nd November* 1855.

"Review of the present state of Oriental Antiquarian, and Geographical Research connected with the West of India and the adjoining countries." By Dr. Wilson.

In this paper, Dr. Wilson reviews the work of the Society during the preceding twelve years, *i.e.*, from 1843 to 1854. This review is more exhaustive than the two preceding ones, referred to by him in this paper.[1] At the conclusion of the proceedings of the meeting, where this paper was read, Lord Elphinstone, the Patron of the Society, while moving a resolution of thanks to the learned author of the paper, expressed his satisfaction at the work done by the Society.

Dr. Wilson begins his review with the literature of the Zoroastrians. He refers to the following publications on this subject :—

1. His book on "The Parsi Religion"[2] dedicated to the office-bearers and members of the Society (1843).
2. His Persian "Zarthusht-Nâmah."[3] This book has been translated into English by Mr. E. B. Eastwick. The translation is published in the appendix (A.) of Dr. Wilson's "The Parsi Religion" (pp. 477-522).
3. "The Vandidâd, Yaçna and Vispard of the Avastâ, in the Zend language but Gujarâtî character, and with a Gujarâtî Translation, Commentary, and Paraphrase, by the late Frâmjî Aspandiârjî." It was published by the Society at a cost of about two to three thousand rupees from a manuscript copy purchased by Dr. Wilson for about Rs. 500 from the late Fardunji Murzbanji in 1835.
4. The Edition of the Zend Avesta by Westergaard, who had visited Bombay in 1842, and Persia in 1843, on a literary mission to collect materials for his edition, and who had now and then communicated the results of his studies to the Society.
5. Spiegel's edition of the Zend Avesta with translation which was being prepared and printed.
6. Rev. Murray Mitchell's papers, giving the abstracts of papers on Zend literature published in Europe.

In this paper, Dr. Wilson quotes, at some length, Westergaard's views, from the preface of his edition of the Zend Avesta, on the antiquity of the Zend Avesta, on the Pahlavi language, and on such cog-

[1] The first was contained in his address to the Society on 27th January 1836, and the second, a very short one, was contained in his letter of resignation as President, on his going to Europe, at the end of the year 1842 (Journal, B. B. R. A. S., Vol. I,, p. 234).

[2] "The Parsi religion, as contained in the Zand-Avasta and propounded and defended by the Zoroastrians of India and Persia, unfolded, refuted, and contrasted with Christianity (1843)."

[3] The Zarthusht-Nâmah of Zârthusht Behram, A. Y., 647. From a MS. in the possession of the Rev. Dr. Wilson, dated A. Y., 1005, Bombay, Lithographed by Âppâ Râma (1842).

nate subjects. Dr. Wilson had Westergaard, as it were, for his *guru* for guidance on Iránian subjects, while Rev. Murray Mitchell had Spiegel. He agrees entirely "with the general view of matters"[1] expressed by Westergaard about the antiquity of the Avesta.

In this volume (the fifth), we have, side by side, the views of Spiegel communicated in two consecutive months (October and November 1855), through Rev. Murray Mitchell, and the views of Westergaard, communicated through Rev. Dr. Wilson. In some points they are diametrically opposed. For example, Spiegel says of the Pahlavi, that the Pahlavi language of the translation of the Avesta is the same as that on the coins. He says[2]: "A large number of coins, which have been so assiduously collected and so skilfully explained by such men as Olshausen, Thomas, and Mordtmann bear undoubtedly inscriptions in the same language in which the translation of the Avesta is written." Again, Spiegel considers this identical Pahlavi—the Pahlavi of the coins and the Pahlavi of the writings—to be Aryan, though latterly mixed with similar words of the Armaic language. Now, Westergaard, as referred to in the paper read by Dr. Wilson, differs from him altogether. He considers the language of the coins to be altogether different from the language of the translations, and he calls the former to be Semitic and the latter Aryan. He says: "But the name Pehlevi, has, in so far as it concerns here, two distinct significations. The official language of the Sassanian kings was called Pehlevi and this is not any Iranian tongue, but, as far as I have been able to decipher it, a Semitic one, in two closely related dialects, with some intermixture of Persian words. As this idiom was the only one which the Sassanians employed on their coins, and in inscriptions placed not only at the western borders of their empire, but also in the very centre, at the ancient Persepolis, I scarcely doubt its being the only Pehlevi language of that age, the only one used in writing, and consequently opine everything composed in those days to have been indited in what I would call the Sassanian Pehlevi. But this Semitic language differs essentially from what Neriosangh (the Sanskrit translator of a part of the Avastâ) calls Pehlevi (Pahlavi bhâshâ), which has, indeed, the same written character, but is by nature Iranian and particularly Persian. This is the proper Zand or *commentary* language; it is employed in the composition of several works long after the fall of the Sassanians, and has remained in use to this day."[3]

Spiegel is of opinion, that the Pahlavi translations of the Avesta, are of the Sassanian times, but Westergaard thinks, that they may belong "to a period shortly before or after the fall of the Sassanians."[4] Then he says: "These translations may have been based upon older ones,

[1] Journal, B. B. R. A. S., V., p. 503. [2] *Ibid.* p. 494. [3] *Ibid.* p. 504. [4] *Ibid.* p. 505.

indited in the Sassanian Pehlevi, whence also Semitic forms might have been taken."[1]

For the latest view, generally accepted, on the Pahlavi language, I would refer my readers to Dr. Haug's Essays.[2] For a comprehensive review of the Pahlavi literature, I would refer my readers to Dr. West's Essay on "Pahlavi Literature" in "Grundriss der Iranischen Philologie."[3]

The Zarthusht-nâmeh, referred to by Dr. Wilson, has been often quoted by Anquetil du Perron in his Zend Avesta.[4] In his Life of Zoroaster, given in this book, he has followed this Persian Zarthusht-nâmeh. It appears, that Anquetil has translated this Persian Zarthusht-nâmeh in Latin also. It exists in manuscript in Anquetil's papers in the Bibliothèque Nationale of Paris, and is referred to by M. Blochet in his catalogue[5] of Parsee books in that library. The book has been translated into Gujaràti by the late Dastur Dr. Peshotan Byrâmjee Sanjânâ[6] under the auspices of the Sir Jamsetjee Jejeebhoy Translation Fund under the charge of the Trustees of the Parsee Punchâyet.

I would here draw the attention of my readers, to the latest book on the subject, published by M. Frédéric Rosenberg, at St. Petersberg in 1904, under the title of "Le Livre de Zoroastre (Zarâtusht Nâma) de Zartusht-i-Bahrâm Ben Pajdû." It is a very excellent book. It gives the Persian text of the Persian Zarthusht-nâmeh, and then the Persian text of a part of the Dabistân which treats of Zoroaster. It gives a translation into French with copious notes. The preface is interesting. It gives a list of technical Persian or Zoroastrian words.

I would also draw the attention of my readers to the late M. Joachim Menant's "Zoroastre. Essai sur la Philosophie religieuse de la Perse (1857)," and to Mr. K. R. Cama's "Life of Zoroaster" (પેગમબર અશો જરથોશ્તના જનમારાનો એહવાલ, 1870, 2nd edition, 1890). The first part of M. Menant's book presents, what we may call, the traditional account of the life of Zoroaster, as presented by the Pahlavi and Persian books. Mr. Cama's book gives the account, as presented by the Avesta. Prof. Eugène Wilhelm's paper, entitled "L' Expédition de Ninos et des Assyriens contre un roi de la Bactrie" (Zoroastre) (1891) is worth reading in connection with this subject. Prof. Jackson's book "Zoroaster the Prophet of Irân," will, for several years, remain as a standard work on the subject.

[1] Journal, B. B. R. A. S., V, p. 505. [2] 2nd edition, pp. 78-92. [3] Band II. Abschnitt II, 3.
[4] Tome I. Pt. II, pp. 1-70. *Vie* de Zoroastre.
[5] "Catalogue des Manuscrits Mazdéens (Zends, Pehlvis, Parsis et Persians) de la Bibliothèque Nationale" par E. Blochet, 1900. No. LXIX. 2, p. 106.
[6] પેગમબર સાહેબ અશો જરતોસ્તના જનમારાના એહવાલમાં દશ્તુર જરતોસ્ત બેહરામે બનાવેલાં ફારસી પુશતકનો શરૈહ સાથે ગુજરાતી તરજુમો. ઈનામનો રેસાલો. ૧૮૬૪.
A second edition of this book has been published in 1902 by Mr. Nusserwánji Frámji Bilimoria.

Journal, B. B. R. A. S., IX, pp. 101-33. *9th April* 1868.

"On the Legend of Tristan." By Edward Tyrrel Leith.

In this paper, the author describes the Legend of Tristan, as known in its supposed home, Britain, and gives the different versions of it, as it spread from one place to another. He points to it, as an instance of the common fact of "the deification of the powers of nature."[1] He thinks, that, at first, it was an Arian legend, and that it can be compared with that of Feridun in the Shâhnâmeh. The legend, as described by Mr. Leith, runs as follows :—

"Tristan of Lyonesse, the hero, is royally descended. The mysterious gloom, which shrouds the very threshold of his life, appears prophetic of the tragedy about to be unfolded. His mother, on learning that his father has fallen in battle, dies in giving him birth. Kept in ignorance of his parentage, the orphan Prince is secretly brought up by Rual, a trusty follower, and educated by him in all knightly accomplishments. When grown to man's estate, Tristan presents himself at the court of his childless uncle, King Mark of Cornwall, who, on hearing his history, adopts him as a son. To save his country from paying a shameful tribute of men and money to the neighbouring Irish, Tristan slays Morold, their champion, in single combat. The youthful victor, however, at the same time receives a dangerous wound from the poisoned weapon of his foe, which no native art can cure. He, therefore, absents himself from his uncle's court, and lands disguised in Ireland, where he is fortunately cured by Isolde, surnamed the Fair, daughter of the Irish King. Tristan eventually returns to Cornwall, and paints the charms of the Princess in such glowing colours, that Mark resolves to make her his Queen. Tristan undertakes to woo her on behalf of his uncle, and journeys to Ireland for that purpose. On his arrival at the Irish court, he learns that the King has promised his daughter's hand to the man who should rid the land of a terrible dragon. Tristan succeeds in killing the monster, and claims the prize in his uncle's name. The King gives his consent, and Tristan sets sail with Isolde the Fair for Cornwall. On the voyage they both unwittingly drink of a Magic Potion, entrusted to the care of Brangæne, a waiting-woman, and destined for King Mark. This Potion possesses the property of making those who partake of it deeply enamoured of each other; and it is upon this effect on Tristan and Isolde that the whole story turns. Isolde becomes the wife of Mark, but continues devoted to Sir Tristan. Mark discovers the attachment, and persecutes the

[1] Journal, B. B. R. A. S., IX., p. 103.

lovers, who practise various deceptions in order to effect a meeting, and even succeed in making their escape together. Isolde the Fair afterwards returns to her husband, while Tristan, driven to despair, weds another Isolde, named "of the White Hand." Our hero vainly endeavours to forget his first love in deeds of reckless daring. On again receiving a grievous hurt in battle, he sends for her who alone can work his cure. His messenger is instructed to hoist, on his return, white sails, should his errand prove successful, and black sails if the reverse. Isolde of the White Hand, jealous of her rival, tells Tristan that she descries a black sail on the horizon, though in reality the sail is a white one. Bereft of hope he dies, and Isolde the Fair, finding, on her arrival, that her aid has come too late, dies also, of grief, by his side. King Mark, when he hears of the Magic Potion and its unhappy effects, causes the lovers to be buried in one tomb, on which he plants a rose and vine. These afterwards grow up so closely entwined one with another that none can ever separate them." [1]

Having described the legend, and given its various versions, and having referred to it, as an instance of "the deification of the powers of nature," the author says: "With regard to Tristan, a very interesting question arises as to whether he is an ancient mythic personage venerated by the Aryan family prior to their migration into Europe. Of this I believe some evidence may be gathered from the history of Ferîdûn, the celebrated hero of Persia." [2]

The legend of Ferîdûn, as summed up by Mr. Leith, is as follows :—

"Ferîdûn, the son of Abtîn and Firânek is born in the reign of Zohâk. That King, warned by wise men that the child would overturn his kingdom, seeks after his life. Ferîdûn's father is killed, but he himself is saved by his mother, who flees with him into India, where he is brought up in secret by a hermit. When sixteen years of age he demands of his mother the history of his birth. On hearing of the persecution by Zohâk, he determines to obtain his revenge. The legend proceeds to narrate his victory over the King, whom he nails, Prometheus-like, to a rock, in obedience to a divine command." [3]

The Avesta name of Ferîdûn is Thraêtaona, which has its corresponding forms in the Vedas. Leith identifies one of these, *viz.*, Tritan, with Tristan of the legend, and thinks, that the legend of Ferîdûn is well-nigh the same, as that of Tristan. The drink of the Haoma juice by Ferîdûn's father, which led to Ferîdûn's birth, is compared to the drink of the "magic potion" in the Tristan legend. The fight of Ferî-

[1] Journal, B. B. R. A. S., IX, pp. 101-02. [2] *Ibid*, p. 124. [3] *Ibid*, p. 124.

dûn with Zohâk, which name is a corruption of Azi Dahâka, wherein Azi means a dragon, is compared with Tristan's fight with the dragon in the story.

Mr. Leith misses one other point of comparison. It is this, that as in the Tristan legend, the queen of King Mark is sought by Tristan, so, in the legend of Ferîdûn, the wives of Zohâk are sought by Ferîdûn, who makes them his wives.

But, in spite of these few points of resemblance, I do not think these legends agree in their main features.

Journal, B. B. R. A. S., XI, pp. 147-218. *9th January* 1875.

"The Subjugation of Persia by the Moslems, and the Extinction of the Sasanian Dynasty." By E. Rehatsek.

This paper is a complete resumé of the different accounts of the fall of Persia under the Sassanides, and the rise of the Arab power in Persia, as given by Tabari, Mirkhond and Ibn Khaldûn. All the materials he had to work upon, were, as Prof. Rehatsek says, one-sided, because there is no authentic account of the times, preserved in any Zoroastrian books. Even during these last 30 years, since the time when Rehatsek wrote, no new important Zoroastrian materials have come to hand.

Rehatsek does not say, why reliable historical sources "from the other side," *i.e.*, from the Parsees, are not found. Apart from the generally accepted fact, that a country wishes to sing more of its victories than of its defeats, it must be borne in mind, that the Arabs would not tolerate any attempts on the part of the Zoroastrian Persians to chronicle an account of their wars with the Arabs from their point of view. The Arabs destroyed most of their ancient literature, and so, even if an account of the war had been written by a Persian, it would not have been allowed to continue, because, it would present a phase of the events which the Arabs would not like.

The first chapter of the paper treats of the commencement of the war by the Arabs during the Khalifate of Abu Bekr, who first thought of subjugating the little kingdom of Hirat which, "although it contained an entirely Arab population," was "tributary to Persia."[1] This town of Hirat has rather a long and varied history of its own, in relation to its Arab population and Persian suzerainty. It is referred to in the Pahlavi treatise of Shatroihâ-i-Airân[2] as being founded by Shapuhar of Ardashir. I would refer my readers for this history to my paper on "The Cities of Iran" based on this new Pahlavi treatise, published in our Journal (Vol. XX, pp. 156-90).

[1] Journal XI, p. 148.

[2] *Vide* my Aiyâdgâr-i-Zariran, &c., pp. 74-78 and 150-51. *Vide* my paper on "The Cities of Iran." Journal, B. B. R. A. S., Vol. XX, pp. 177-78.

Prof. Rehatsek gives, in this paper, "a chronological table of the sovereigns of Persia"[1] from Shiruyeh (Kobad II) to Yazdegird, the last monarch, according to different European authorities,[2] who differ not only in dates, but also in the names of the successive sovereigns. We also find a difference in the names and dates, as given by Eastern authorities, and those, as given by the Pahlavi Jâmâspi. Even the Pahlavi, Pazend and Persian versions of the Jâmâspi differ in these dates, which is due to the faults of the copyists.[3]

The last portion of this very interesting and exhaustive paper is very important from the point of view of the Indian Parsis. Rehatsek says, "The complete subjugation of the vast extent of the Persian monarchy took place only by degrees, and revolts now and then still took place, but were suppressed without very great difficulty, as no extensive organizations or ramifications of them among the various districts were possible. These insurrections were frequent enough up to the death of the Khalif Sulaimân B. A'bd-al-Melek, which took place A.H. 99 (717-18). The last great effort of the Persians to recover their ancient independence occurred also in the 8th century of our era, but the Rauzat-al-çafa, from which I take the account, does not give the date. Sinbâd, the Zoroastrian, an influential inhabitant of Nishâpûr, raised the standard of revolt by first proclaiming his intention to liberate the Persians from the Musalmân yoke in his native city, and inviting the population of the district of Rey, as well as the whole of Tâberistân, to make common cause with him. Sinbâd first marched to Kazvin, with the intention of taking possession of it, but was disappointed. In Rey he was more successful; he not only took it, but slew its governor, and obtained an enormous booty of arms and other articles. When he had collected an army of 110,000 men, he declared that the end of Islâm was at hand, that a scion of the Sâssânian dynasty would make his appearance, under whose command he would march to Mekkah and would destroy the Ka'bah. When Abu Ja'fer Mançur heard of what was taking place, he marched with his army to Sâwa; Sinbâd, too, hastened to encounter him, carrying also many Musalmân women whom he had placed on camels. The battle which took place was decisive: Sinbâd was put to flight and afterwards killed in Tâberistân; his army was partly destroyed, but many of the fugitives perished of thirst in the desert. The total

[1] Journal, B. B. R. A. S., Vol. XI., p. 148n.

[2] Rehatsek follows Mordtmann, whose order of chronology is given by Mr. K. R. Cama in his "Jamshedi Naoroz. The New Year's day of the Ancient Persian Empire." (Translation from the German of Dr. Mordtmann, 1874), p. 33.

[3] *Vide* in K. R. Cama Memorial Volume, my article entitled "The years of the reigns of the later Irânian kings according to Jâmâspi," p. 234. *Vide* my Pahlavi Translations Part III, Jâmâspi, pp. 93-94 and 116-117.

number of those who lost their lives is stated to have amounted to 70,000."[1]

I have quoted the last part of Rehatsek's paper at some length, because, it is important from the point of view of the later history of the Parsees, who, as said by the Kisseh-i-Sanjân, had emigrated to India from Kohistân[2], after a stay there of 100 years after the downfall and death of their last king Yazdegard. It appears, that the band of the Parsees, who emigrated to India in about A.D. 766, were some of the fugitives, referred to by Rehatsek, in the above passage, on the authority of Mahomedan writers. I would ask my readers, to read in this connection, Rehatsek's paper on "The Bâw and Gâobârah Sephabuds along the southern Caspian shores."[3]

Journal, B. B. R. A. S., Vol. XI, Abstract of the Society's Proceedings, pp. XXXVI-XLIV. 20th October 1875.

"Sketch of the subjects which he proposes to investigate in Persia." By Dr. Andreas.

In this paper Dr. Andreas, who had come to Bombay, on his way to Persia, gave a sketch of the subjects worth investigating in Persia and which he proposed to investigate. He considered, that "the study of the actual geography and ethnography of Persia" was necessary to give "a full insight into the history and civilization of the Persian race."[4] He attached great importance to the investigation of geographical names with a view to examine their identity with old names.

Of the city of Rishehr, "on the road from Bushire to Shiraz," he says that its name is "a contraction of Riw-Ardeshir," said to have been refounded by Ardeshir Bâbegân, the first Sâssanian king. Now, the Kârnâmeh-i-Ardeshir Bâbegân refers to four cities, as founded by this monarch—(1) Râs Shâpuhar, (2) Artâshir Gadman, (3) Bôkht Artâshir, and (4) Ramashneh-i-Artâshir.[5] Tabari[6] gives the names of six cities founded by Ardeshir—(1) Ardeshîr-Âbâd, (2) New-Ardeshir, (3) Hormuzd Ardeshir, (4) Aspâbâd Ardeshîr, (5) Aspâ Ardeshîr, and (6) New-Ardeshîr between Medina and Mossul. According to Firdousi[7] he had founded six cities, and he gives the names of four—(1) Khareh-i-Ardeshir, (2) Râm Ardeshir, (3) Ormazd Ardeshir, and (4) Barkeh-i-Ardeshir. We do not find in these different names, a city of the name of Riw Ardeshir, as founded by Ardeshir. So, I think, that the city of Rishehr, referred to by Dr. Andreas, must either be Râs-Shapuhar or New Shahpur corrupted into Rishehr.

[1] Journal, B. B. R. A. S. XI, pp. 217-18.
[2] Kohistân includes the provinces of Ghilân, Mâzenderân and Taberistân.
[3] Journal, B. B. R. A. S., Vol. XII, p. 410. *Vide* below, pp. 241-44.
[4] Journal, B. B. R. A. S., Vol. XI. Proceedings, p. xxxvii.
[5] Kârnâmeh-i-Artashir-i-Pâpakân, by Dastur Darab P. Sanjana, ch. X, 17; IV, 17, 8, 3.
[6] Tabari par Zotenberg III, p. 74. [7] Mohl V, pp. 303, 87.

Dr. Andreas refers in his paper to the cuneiform inscription at Murgab, which reads "I, Cyrus, the king of Achæmenide", and which is attributed by many to Cyrus the Great, who founded the Achæmenian dynasty, and by some, to Cyrus the younger, who fell at the battle of Cunaxa. From the fact, that the figure, over which this inscription is engraved, "bears an Egyptian dress, peculiar to certain Egyptian deities and to the divinized kings of Meroë,"[1] Dr. Andreas thinks, that, it belongs to a brother of Xerxes, whose proper name he assumes to be Cyrus. According to Ctesias, he "was Viceroy of Egypt, fell there in a battle against the rebel Inaros, and was brought to Persia to be buried there."[2]

On one of the two roads—the eastern one that leads from Shirâz to Bunder Âbbâs—there lies a town, not far from Khir, named Tirdeh. Andreas identifies it with the town named Tîrouzé by Tabari[3], and placed by him in the country of Khir and in the dependency of Istakhr. Tabari speaks of it as the native place of Ardeshir Babegân.

On the western road leading from Shirâz to Bunder Âbbâs, there lies the town of Firuzâbâd, originally called Gour. Dr. Andreas says that "the actual name, Firuzâbâd, was given to it by Buid-sultan Azad-ed-daulat after its capture."[4] The reason of this change of name was this. Whenever the above-mentioned Azad-ed-daulat went to the town of Gour, the people said ملک بگور رفت *i.e.*, the king has gone to Gour. Now, the word Gour, also means in Persian "a grave." So the sentence also meant "The king has gone to his grave." They say, that the governor did not like these unlucky words and so changed the name Gour to Firuzâbâd.[5]

Journal, B. B. R. A. S., XII, pp. 219-299. *March* 1876.

"Contact of the Jews with the Assyrians, Babylonians, and Persians, from the Division of the Hebrew Monarchy into two Kingdoms (B.C. 975) till the Entrance of Alexander the Great into Jerusalem (B.C. 333); and a View of Jewish Civilization." By E. Rehatsek.

Prof. Rehatsek tries to show in this paper, that "the Jews had followed other gods, of the gods of the people that were round about them, so that they were not only in historical, but also in religious contact with them."[6] Before considering what he calls their "foreign gods," he gives "a brief account of the systems of religion prevalent among the four great nations (the Assyrians, the Babylonians, the Medians and the Persians) with whom the Jews came in contact during the period under discussion."[7]

[1] Journal, B. B. R. A. S., XI, Proceedings, p. xxxix. [2] *Ibid.*

[3] Tabari par Zotenberg II, p. 67. [4] Journal, B. B. R. A. S., XI, Proceedings, p. xl.

[5] *Vide* my Aiyâdgâr-i-Zarirân, Shatrôiha-i-Airân, &c., pp. 99, 157, 170. *Vide* my papers on "The Cities of Irân" and "The Etymology of a few towns of Central and Western Asia, as given by Eastern writers" (Journal, B. B. R. A. S., XX, p. 184 and p. 223).

[6] Journal, B. B. R. A. S., XI, p. 221. [7] *Ibid.*

At first, he treats of the religions of Assyria and Babylonia together in one group, and then those of Media and Persia in another group. Of the first group, he says: "The theology of the Assyrians, who were Semites like the Hebrews and Arabs, and of the Babylonians, who were Hamites, will not become well-known until the many thousands of clay tablets now mouldering on the shelves of the British Museum are deciphered."[1] That has been done to a great extent now, and we have now more than one book on the subject.

Asshur, "the king of all the gods" among the Assyrians, is identified by some with the Ahura of the Persians. "Of the two chief emblems connected with the worship of Asshur, the first is the winged circle or globe, considered to be also a symbol of Ormazd."[2] European savants consider it a symbol of Ormazd, but Parsee scholars believe it to be the Farôhar or the guiding spirit. In several sculptures of Persia, a king is represented, as praying before a Fire-altar with a winged figure hovering in the air. This figure is believed by the Parsees to be a figure of the Farôhar (or the guiding spirit) of the king who prays. In the Farvardin Yasht (Yt. XIII.) the Fravashi or the Farôhar, is represented as coming down to the earth in the form of a bird (mânayen ahê yatha nâ mereghô huparêno, *i.e.*, like a man in the form of a bird with good wings).[3]

That this is not the figure or the symbol of Ormazd, is proved by the fact, that, had it been so, it would have been the same in all cases. But it varies in different cases. It has been found in the case of one and the same king, that the winged figure in his picture of a young age has young features, and that in his picture of an old age, has old features. This shows, that, the winged figure is a picture of his own Fravashi or Farôhar, which is his own prototype. Had it been that of Ormazd, it would have been the same in all cases.

The second symbol connected with the worship of Asshur is the sacred tree. This sacred tree is the palm-tree among the Babylonians. Now, the Persians also had a sacred tree. Even up to now, the Zoroastrians use the leaf of the date-palm in their ritual.

Coming to the second group, *viz.*, the religion of the Medes and Persians, the two "branches of the great Aryan family, allied in language and religion," the author says, that though they "conquered their two Semitic neighbours, Assyria and Babylonia, and constituted the great Persian Empire," their unity of government brought on "no unity of language. Hence the trilingual inscriptions of Behistun, Persepolis, &c., consisting of an Indo-European, a Tartar, and a Semitic column. . . . The Magi, who considerably modified the

[1] *Ibid.* [2] *Ibid.* p [illegible] [3] Yasht XIII, [illegible]

religion of the Persians and the Medes, were a tribe of the latter, but may be recognized as Scyths."[1]

Rehatsek speaks of the prevalence of two elements in the religious system of the Persians. (1) Firstly, what he calls, the elemental worship and ignolatry, which came to them from the Magi, who were a tribe of the Medes and may be recognized as Scyths. (2) The dualistic doctrine, which is originally Persian or Zoroastrian.

The Persian nation also, had, as a whole, two elements: (1) the Persians proper, and (2) the Medes, who included the Magi.

Now, what Herodotus describes as the religion of the Persians, is the religion of the masses, among whom the Mede or Magian element was prevalent to a greater extent. In Herodotus, there is no trace of Dualism, and no mention of Ormazd; whereas, conversely, in the inscriptions, there is nothing elemental, but the worship of the supreme God under the name of Ormazd. From this, Rehatsek draws the conclusion, that "Herodotus has had evidence of the religion of the masses only, which had not accepted Dualism,—that is to say, the religion of their Persian conquerors, the religion of the state or established worship; whilst, on the other hand, the absence of the mention of elemental, originally Scythian, and strictly Magian, religion in the inscriptions is no evidence of its not having constituted at the time of their composition a part of the Persian religion, as the omission may easily be accounted for by the great pre-eminence which the adoration of Ormazd naturally enjoyed after, as well as before, the addition of Magism to it. The fact that Herodotus knew of no other than the elemental religion is sufficient evidence of its extent; for not only was it predominant among the Medes, but also the bulk of the dominant Persians were well disposed towards it."[2]

Rehatsek says that the religion of the Persians had gone through five stages, by the time, when Darius came to the throne of Persia.

(1) In its old home of Central Asia, where it flourished as the old Aryan religion, it was, to some extent, Nature-worship. Their worship was then common with that of their Indian brethren.

(2) The second stage was that of "the belief in Ormazd as the supreme Creator." "It boldly declares that at the head of the good intelligences is a single great Intelligence, Ahurô Mazdâo, the highest object of adoration, the true Creator, Preserver, and Governor of the Universe. This is its greatest glory. It sets before the soul a single Being as the source of all good, and the proper object of the highest worship."[3]

[1] Journal, B B. R. A. S., XII, p. 230. [2] *Ibid*, pp. 232-33. [3] *Ibid*, p. 231.

(3) Dualism.
(4) Fusion with Magism, on coming into contact with the Medes, who carried their thoughts from Nature to Nature's God.
(5) Purification of the religion by Darius after the Magophonia (an annual festival to commemorate his massacre of the Median Magi).[1]

Coming to the subject of the contact of the Jews with the Persians, Rehatsek refers to the several Persian kings and their services to the Jews.

Nebuchadnezzar, the Babylonian king, had cruelly put out Zedekiah's eyes and had otherwise ill-treated the Jews. He died in B.C. 561, after a reign of 43 years. He was succeeded by his son Evil-Merodach, who in turn was succeeded in 559 B.C. by Neriglissar, who died in 556 B.C. It was during his reign, that "Cyrus, the Persian, dethroned Astyages the Median (in 558 B.C.) and established the supremacy of the Persians." Neriglissar was succeeded by his son Laborosoarchod, who reigned only for nine months, being "murdered by Nabonadius, who mounted the throne 555 B.C. and was the last king of Babylon,"[2] Cyrus having taken it in 538 B.C. "Cyrus found among his new subjects an oppressed race, in whose religion he recognized a considerable resemblance to his own. . . . He regarded the Jews with especial favour as monotheists, which he showed by allowing them to return to their country to rebuild the Temple, and bringing forth by the hand of Mithredath, his treasurer, the sacred vessels formerly taken from it, and surrendering them to Sheshbazzar, the prince of Judah." The Temple was begun in 535 B.C. But the dissension among the different sections delayed it. The pseudo-Smerdis "ordered the works to be stopped about 522 B.C." because it was represented to him by the rival tribes "that the Jews were building the city in order to become rebellious."[3] A decree of Darius in 519 B.C. permitted the continuation of the work, which was finished in 515 B.C.

Darius died in 486 B.C. and his son Xerxes succeeded him. He had a Jewish queen, named Esther, who is said to have saved the Jews from a massacre at the hands of the Minister of Xerxes. Not only that, but she managed to persuade the king to allow the Jews to kill, on a particular day, all their enemies. The Purim feast of the Jews commemorates this event.[5]

Xerxes was succeeded by Artaxerxes I, known as Macrocheir, *i.e.*, the long-handed, by the Greeks. The Jews, it is said, were threatened by two perils in his reign. The first was of that kind, which, a large number of Parsees, at present, are afraid, would overtake them. It was "that, if the Jews had continued their

[1] *Ibid.* p. 253. [2] *Ibid.* p. 255. [3] *Ibid.* p. 256. [4] *Ibid.* p. 257. [5] *Ibid.* p. 259.

inter-marriages with foreign nations, as they had commenced to do, and did on their return from Babylon, they would soon have become so commingled with them as to cease to be a separate people. Ezra had brought his colony from Babylon during the seventh year of this king, *i.e.*, 458 B.C. and Nehemiah about 434 B.C. Ezra collected all the men of Judah and Benjamin in Jerusalem, and exacted a solemn promise from all who had taken strange wives and begotten children, to divorce their wives. Then all the congregation answered and said with a loud voice : 'As thou hast said, so must we do.'

Nehemiah also purged the nations from strange marriages, and freed it from the second danger, which consisted in the defenceless position of the country, enhanced by its remoteness from Persia, and exposed to be pillaged before aid could arrive. Nehemiah obtained a decree from Artaxerxes to fortify the city in the twentieth year of his reign, and its walls were built." [1]

Artaxerxes I was succeeded by his son Xerxes II, who reigned only forty-five days, and was murdered by his illegitimate son Sogdianus, who, after a reign of six and a half months, was in his turn murdered by his brother Darius Nothus (B.C. 424 to 405), who, after a reign of nineteen years, was succeeded by his son Artaxerxes II.[2]

In the reign of this Artaxerxes II, Bagoses, the Persian General, is said to have "polluted the temple and imposed tribute on the Jews, —that out of the public stock, before they offered the daily sacrifices, they should pay for every lamb fifty shekels."[3] It seems that the Persian General Bagoses was a friend of Jesus (Jeshua), the brother of John. "It was . . . a feature of the Persian system of administration to allow the nations under their rule a good deal of self-government and internal independence."[4] This being the case, "even the civil governors of Judæa, which was a portion of the Syrian satrapy, were always Jews; they, however, did not succeed each other very regularly, and therefore the high priests, *i.e.*, spiritual governors, came to be regarded as not merely the religious, but also the political heads of the nation."[5]

Now, John was one of such religious and political heads. He was provoked by his brother Joshua in the temple itself. In the quarrel which ensued he killed his brother. It is believed, though it is not clear, that it was, as a punishment of this crime by John, that Bagoses, the friend of the murdered brother Joshua, imposed the above-said tribute on John and his Jews. This, then, was the result of internal dissensions.

Artaxerxes II was succeeded by Artaxerxes III (B.C. 359 to 338), who was murdered at the instigation of somebody in his "Zanánah" and was succeeded by Darius III, surnamed Codomanus, whose rule was

[1] *Ibid*, pp. 259-60. [2] *Ibid*, p. 260, n. 4. [3] *Ibid*, p. 260. [4] *Ibid*. [5] *Ibid*.

overthrown by Alexander. "Jaddua, the son of the abovementioned John, succeeded his father in the high priesthood, and was a contemporary of Darius III, who sent one Sanballat, a Cuthæan by birth, of which stock also the Samaritans were, to Samaria as governor; this officer had a daughter, Nicaso by name, whom he gave in marriage to Manasseh, the brother of Jaddua, and partner with him in the high-priesthood. This marriage was a great stumbling-block to the elders of Jerusalem, who considered it to be a step encouraging all men desirous to enter into alliances with strange women, which would bring on a mixture with foreign nations; accordingly, they commanded Manasseh either to divorce his wife, or to refrain from approaching the altars, the high-priest himself joining the people in their indignation against his brother, and driving him away from the altar. The evil had, however, already gone too far, for not only the people of Jerusalem, but many even of the priests and Levites, had contracted such marriages, so that a great disturbance arose; they all revolted to Manasseh, and Sanballat gave money, as well as habitations and land for tillage, to gratify his son-in-law, whom he also promised to make governor of all the places he himself ruled over, and high-priest; he further promised to build him a temple like that of Jerusalem, upon Mount Gerizim, which is the highest of all the hills in Samaria. All this was to be done with the approbation of Darius the King."[1] But Darius was shortly afterwards defeated and succeeded by Alexander the Great. Sanballat persuaded Alexander and got his leave to erect a new temple, of which he appointed Manasseh as the head-priest.

Rehatsek's paper ends with the reign of Alexander, but we find that the contact had long continued, even up to the Sassanian times. Of the influence of a Jewish lady as the queen of a Persian king, like that in the case of queen Esther and Ahuserus (Xerxes), we have a notable instance in that of Shishindôkht, the Jewish queen of Yazdagard I. It is referred to, in the Pahlavi treatise of Shatrôihâ-i-Airân.[2] She is said to be the daughter of one Resh Galutha, who "is called" Yahoudgân Shâh, *i.e.*, "the king of the Jews." This phraseology refers to the custom above referred to, *viz.*, that the high-priest or the spiritual leader was also considered to be the political ruler. The words "Resh Galutha," used in the Pahlavi treatise, mean "the Prince of the Captivity or the Exilarch."[3] Albiruni[4] refers to the political power exercised by these head-priests. Some of these Jewish head-priests enjoyed royal honours in the court of some of the Sassanian kings of Persia. Huna, the son of Nathan, was a special favourite of Yazdagard.

[1] *Ibid*, pp. 261-62. [2] *Vide* my "Aiyâdgâr-i-Zarirân, Shatrôihâ-i-Airân and Afdîya va Sahigiyan-i-Seistân," pp. 105, 113, 137-40. [3] "History of the Jews," by Graetz, Vol. II, p. 513.
[4] "The Chronology of Ancient Nations" by Albiruni, translated by Dr. Sachau, pp. 59, 68.

Graetz,[1] in his History of the Jews, says on this point "He (Yezdagard) was exceedingly well affected towards the Jews, and at the same time favourably disposed towards the Christians. On the days of homage there were present at his court the three representatives of the Babylonian Jews : Ashi, of Sora ; Mar-zutra, of Pumbeditha ; and Amemar of Nahardea. Huna bar Nathan, who, if he was no Prince of the Captivity, must nevertheless have been possessed of considerable influence, held frequent intercourse with Jezdijird's court. Such a mark of attention on the part of a Persian king . . . . may be regarded as a proof of high favour." It appears that not only Jewish princesses but other Jewish ladies had begun influencing the Persians in one way or another. It is for this reason, that we find the Dinkard[2] deprecating marriages with Jewish women.[3]

According to the abovenamed Pahlavi treatise, the foundation of the town of Kharzem, (modern Khiva) in ancient Persia, is attributed to the Rish-i-Yahoudgân,[4] *i.e.*, "the chief of the Jews," and that of the towns of Shus, Shushter and Gae (in Ispahân) to the Jewish queen Shishindôkht. Ispahân, the ancient capital of Persia, or at least a part of it, was at one time called Yahoudieh.[5] On the subject of the Jews and the Persians, Prof. Darmesteter's "Textes Pehlvis relatifs au Judaisme" (Revue des Études Juives T. XVIII. pp. 1-15 and 41-56) may be read with advantage. Mr. L. H. Gray's article "Jews in Pehlavi Literature" in the Jewish Encyclopædia, which is being published, presents an interesting view of the subject.

Journal, B. B. R. A. S., XII, pp. 410-45, *9th September* 1876.

"The Baw and Gaobarah Sephabuds along the southern Caspian shores." By E. Rehatsek.

This paper "treated of the Sephabuds of Màzanderân and Tabaristân, and touched upon the subject of the gradual transition of the Persians from Zoroastrianism to Muhammadanism as far as the Sephabuds of the Bâw and Gâobârah dynasty, whose history was given, are concerned."[6]

The author gives in this paper, a short history of some of the Zoroastrian principalities that existed in the mountain districts, north of the Elburz range, even long after the downfall of the Persian Empire under Yazdagard. "The reason why several of these little sovereigns managed to subsist . . . . . and why at least the Bâw and Gâobârah Sephabuds succeeded in maintaining themselves in the

[1] Vol. II, p. 617. [2] Dinkard by Dastur Peshotan, Vol. II, p. 90.

[3] *Vide* my Aiyâdgâr-i-Zariran, &c., p. 141.

[4] For the position, which this Rish-i-Yahoudgân, *i.e.*, the Exilarch enjoyed in Persia, in later times, *vide* "History of the Jews," by Graetz, Vol. III, p. 94-96.

[5] Dictionnaire Géographique &c. de la Perse par Barbier de Meynard, p. 45.

[6] Journal of the B. B. R. A. S., XII, Abstract of the Proceedings, p. XXII.

Kôhestân or 'mountain region,' must be sought in the rugged and wild character of a land full of jungles, rocks, and precipices, as well as of malarious plains; in the independent nature of mountaineers; and in the struggles of the Abbaside Khalifs with various rebels, who sometimes so fully engaged their forces that the princes of Tabaristân and Mâzanderân had opportunities of temporarily throwing off the yoke of their conquerors."[1]

Out of the different dynasties that ruled there, Rehatsek gives an account of the two principal ones, *viz.*, the Bâw and the Gâobârah, on the authority of (1) the Târikh of Tabaristân, Ruyân and Mazanderân of Sayyid Zahir-aldyn, (2) the Rozat-us-safâ of Mirkhond, and (3) the Muntakhab-al-Tawârikh of Badaoni.

The following table, prepared from Rehatsek's account, gives a list of the princes of Tabaristân, who ruled in Tabaristan long after the Arab conquest :—

Kobâd

- Kyûs
  - Shâpûr
    - Bâw[2] (became king of Tabaristan in 665-66 A.D. He was treacherously slain by Vellâsh, who ruled after him. The people rallied round his son Surkhâb and killed Vellâsh).
      - Surkhâb (reigned for 30 years).
        - Mihrmerdân (reigned for 40 years).
          - Surkhâb (reigned for 20 years; poisoned himself in 760 A.D. Abu Ja'fer sent an army against him in 759—760 A.D.).
            - Sharvyn (known as Melik Aljebâl, *i.e.*, Prince of the Mountains, reigned 13 years. Killed in 783 A.D. by Khalif Mohdy.)
              - (Kârn)[3]
                - Sheheryâr (reigned for 28 years; died in 825—26 A.D.)
                - Shâpûr (slain by order of Mâmûn)
                - Ja'fer (succeeded his brother Shâpûr and reigned for 121 years)
                - Kârn[4] (succeeded his brother Ja'fer and reigned for 30 years)
                - (Surkhâb)[5]
                - Rustum (reigned. 23 years, died 895—96 A.D.)
                - Sharvyn
                - Sheheryâr (reigned 37 years.)
                - Rustam[6] (came to throne in 1027-28 A.D., died 1028. He was also known as Sheheryâr.)

[1] Journal, B. B. R. A. S., XII, p. 410-11.

[2] Made king by the people of Tabaristân in A.D. 665-6.

[3] He did not reign, having died in the lifetime of his father.

[4] "He was the first of these princes who made a profession of Islâm." J. B. B. R. A. S., XII, p. 416.

[5] He did not reign.

[6] Before he came to his father's throne, the country was ruled by one Dârâ bin Dârâ for 35 years. He fought against A'llâaldaulah, was taken prisoner, and died in captivity. The dynasty died with him.

The following table gives a genealogical table of the Gâobârah Sephabuds, who first ruled in Gelân and then in Tabaristân :—

Gâobârah Sephabuds

Jâmâsp. Began to reign A.D. 497.

Nersi — Bohvât

Fyrûz

Jyllânshâh

Jyl,[1] (Died 661 A.D.)

Dabuyâh — Bâdûspân

Farrukhân (reigned for 17 years. He built the town of Sâry near Nishâpur and named it after his son Sârûyah (J. B. B. R. A.S., XII, p. 443.)

Dâdmihr (reigned for 12 years)

Khôrshyd (Sârûyah, his uncle, acted as regent during his minority).

Speaking of the Sephabud Farrukhân, the 7th in the descending list in the above table, Rehatsek says[2] as follows :—" The Sephabud Farrukhân was succeeded by his son Dâdmihr, who enjoyed a reign of twelve years, during which, and down to the end of the Ommiade dynasty (A.D. 749, A.H. 132), no Arabs invaded Tabaristân, on account of the great strife and troubles it underwent."

We learn from this, that the real Arab invasion of Tabaristân, which, with Gelân, Mâzanderân and the adjoining country, forms the country known as Kohistân, or the mountainous district, began in about 749 A.D. and continued in the reign of Khalif Mançur, who ruled from A.D. 754 to 775. The last of the Sephabuds in this Khalif's reign was Khôrshyd. "He caused every town and the whole country to flourish, but became, after he had reigned for a long time, so proud and overbearing towards his high officers, and tyrannical towards his subjects, that they felt aggrieved, and would have been glad of an opportunity to revolt from him, which . . .actually presented itself . . . . . O'mar B. Ala'llâ, who had on a former occasion killed somebody in Gorgân, and having taken refuge with the Sephabud lived for some time under his protection, was well acquainted with all the roads and mountain tracks, now joined the

[1] He was surnamed Gâobârah, because from his country of Gilân, he went to Tabaristân to conquer it "in the guise of a poor traveller with a load of cow (gâô) hides or heads" (J., B. B. R. A. S., XII, p. 438.)

[2] *Ibid*, p. 442.

army of the Khalif, and became the guide of Ab-Alkhacyb's troops, from which he took 1,000 men and hastened to Amul, where he slew in battle the Marzbân who governed that town on behalf of the Sephabud, took possession of it, and appointed a herald to invite the people to embrace Islâm, whereupon crowd after crowd and tribe after tribe arrived, accepted Islâm, became Musalmâns, and renounced ignolatry, because the people had met only with scorn and disregard from their own Sephabud." [1]

Now, the first band of the Parsi fugitives from Kohistân are reported, on the authority of the Kisseh-i-Sanjân, to have left their district and come to Ormuz in A.D. 751. Thus, it appears, that they must have left their mountainous district, shortly after the commencement of the Arab invasion of Tabaristan in 749 A.D., as described by Rehatsek, on the authority of Mahomedan authors. (*Vide* above, p. 234.)

Journal, B. B. R. A. S., XIII, pp. 18-108. 17th February 1877. [2]

"Christianity in the Persian Dominions, from its beginning till the fall of the Sasanian dynasty." By Prof. E. Rehatsek.

It is a very exhaustive paper on the spread of Christianity in Persia, based on materials collected from European and Oriental authors. It shows "the state of Christianity under various sovereigns of Persia, beginning with its propagation at Edessa where it first reached from Palestine." [3]

It was from Edessa, that it gradually spread into Persia. Voltaire places the scenes of his well-known play, "Les Guebres ou La Tolerance" in Syria, where the Christian rulers of Rome came in contact with the Zoroastrians of Persia.

The order of the successive kings of Persia, as given by Rehatsek, and their dates, vary a little, here and there, from those given by other authors.

Professor Rehatsek begins his survey with the state of the Chaldæan diocese in Seleucia, "the capital of which was the first episcopal seat occupied by Maris, whom Thaddæus or Addæus, one of the seventy-two disciples, had sent there." [4] At first it was dependent upon the patriarch of Antioch, but afterwards became independent and embraced "all the countries, formerly under the sway of Persia, from Mesopotamia to the extreme boundaries of Turkestân, also China and India." [5]

Christianity was founded in Edessa by Abgar, the ruler of the place, who, it is said, receiving favorable reports of the miraculous powers of

[1] *Ibid*, pp. 443-444. [2] Journal, B. B. R. A. S., XIII. Abstract of Proceedings, p. I.
[3] *Ibid*, p. II. [4] Journal, B. B. R. A. S., XIII, p. 18. [5] *Ibid.*

Jesus Christ, wrote to him to visit his Court to cure him of his disease. Christ wrote in reply, that he would send somebody else in his stead. Thomas, one of the twelve apostles, sent Thaddæus, one of the seventy or seventy-two disciples, to Abgar, after the ascension of Christ. Thaddæus cured him, and baptized him and his whole city. The letter of Christ, which Rehatsek gives in this paper[1], is now believed to be apocryphal.

The spread of Christianity at Edessa was stopped in the reign of Abgar's immediate successors. In the meantime, Thaddæus preached Christianity at Arbela, Nisibis, Beth-Garma and Mosul, "whilst his chief co-adjutor Maris did so in Babylon, in the adjoining provinces of Persia beyond the Tigris, dwelling, however, chiefly in Seleucia and Ctesiphon, the capital of Persia, where he converted many to the faith, and built several churches, in one of which he was buried."[2] Achis, the other assistant of Thaddæus, preached Christianity in the province of Ahvâz. "Afterwards the number of Christians was considerably increased by the prisoners whom the Persians captured in their wars with the Romans, and who, being dispersed in various districts of Persia, propagated their religion in them."[3] An edict of Trajan (A.D. 112) stopped the persecution of the Christians. "Christianity gradually radiated further from Edessa (which was under the suzerainty of the Romans), into Persia, but the whole of Armenia was Christianized only under Persian vassalage in the beginning of the fourth century."[4]

The Parthian king of Persia during the later days of Trajan was Chosroes, who was dethroned by Trajan, but was re-instated by the people on the death of Trajan.

Rehatsek here describes as follows the method of electing the Catholicus (*i.e.*, the patriarch or the bishop) of Persia, in the early part of the second century after Christ:—

"The Bishop of Cascara proceeded to Seleucia, to take temporary charge of the widowed church, as soon as the Catholicus of Persia died, and invited by letter, six or eight metropolitans to proceed to a new election. These prepared themselves by fasting and prayer in the church Dir Elkam, with the other clergy and chief men of the laity. This assembly proposed certain candidates, whose number being finally reduced to three, their names were written on three papers, a fourth being inserted with the name of Christ as the chief pastor. These four slips of paper being folded into balls were placed under the altar, on which the sacred liturgy was celebrated. Then a little boy was made to pull out one ball; if it contained the name of a can-

[1] *Ibid*, p. 20. [2] *Ibid*, p. 23. [3] *Ibid*. [4] *Ibid*, p. 26.

didate he was proclaimed Catholicus, but if the name of Christ appeared on the paper, none of the three were considered worthy, and the same process was gone over with three other candidates, and repeated until one was elected."[1]

This process of divination, in the election of a bishop, reminds a Parsee of the election, in the later Sassanian times, of Ardâi Viràf, for the purpose of a divine mission to the other world. In that election also, we find a large assembly electing a smaller one, and this in its turn electing a still smaller one, until three were finally elected. These three drew lots among themselves, as to who should undertake the divine mission.[2]

In the beginning of the third century, the Sassanians came into power in Persia. They were in continuous hostility with Armenia. "Under the predecessors of Tiridates[3] (the king of Armenia), the Armenians followed a religion which was no doubt the same as that of the Parthians, *i.e.*, probably a mixture of Zoroastrianism, of Greek mythology, and of some other doctrines brought by their ancestors from Scythia. In their temples numerous idols could be seen, to which animal sacrifices, never in vogue among Zoroastrians, were offered. The latter, it would appear, admitted during that period only the Zervana Akarana, or, 'time without bounds,' which the Greeks translated by Saturn, as their chief Deity."[4]

Here Rehatsek gives in the footnote the ordinance of Mihr-Nerseh, the Persian Governor of Armenia (published in 442 A.D.), on the belief of Zervana Akarana. We must note, that all this refers to a particular sect of Persia, known as the Zervanites, and not to all the Persians in general.

The Armenian king Tiridates latterly adopted Christianity, which spread on a large scale in Armenia. This was one of the causes of the religious wars between Persia and Armenia, which lasted for a long time.

Ardeshir Bàbegan died in 240 A.D. and during the short period of 69 years (240—309) that followed his death, seven kings ruled, one after another, for short periods. They were Shapur I., Hormuzd I, Behràm I, II, and III, Nersi, Hormazd II. Then came the long reign of 70 years of Shapur II (309—379 A.D.), and it was a period of "a great persecution of the Christians."[5] It was during his reign that Mâni, the founder of the Manichæan heresy, flourished. He "promulgated tenets professed partly by Christians, by Zoroastrians and by Bud-

[1] Journal, B. B. R. A. S., XIII, pp. 27-28.
Vide Dastur Hoshangji and Haug's Viràf nàmeh Ch. I.

[2] This Tiridates is not the one, who was the brother of Vulkhas, and who lived in the time of Nero.

[4] Journal, B. B. R. A. S., XIII, p. 30

[5] *Ibid.* p. 31.

dhists."[1] Shapur II looked towards it as an offshoot of Christianity and tried to suppress it. Now, this persecution of the Christians under Shapur II was more on political grounds than on religious grounds. It was more of a political persecution than a religious persecution. Professor Rehatsek says on this point:

"It may be observed that the whole persecution just noticed was chiefly confined to the provinces of Persia for the possession of which Shâpûr contended during a portion of his long reign, namely, to the districts from Edessa down to Ctesiphon, embracing a part of Armenia and the whole of Mesopotamia, so that the Christian martyrs were considered to favour the views of their Roman co-religionists, and to be disloyal to the Persian Government; accordingly they were liable to be persecuted also on that score, which would considerably modify, if not altogether invalidate, the assumption that the persecution was exclusively of a religious character."[2]

Then the short period of 20 years (379—399 A.D.) saw the rule of three kings over Persia, Ardeshir II, Shapur III, and Behram IV. Then we come to Yazdagird I (399—420). This monarch is said to have favoured the Christians a good deal. Several causes seem to have won his favour for the Christians. Rehatsek[3] does not refer to all of them. He refers to the following :—

(1) Bishop Isaac "in connection with St. Acacius, the Bishop of Amida, ransomed Persian prisoners from the Romans, but the precise year in which this event happened cannot be made out satisfactorily. When the Romans had, in their devastation of Azanena, captured about seven thousand Persians, whom they were by no means inclined to release, and who were starving, Acacius convoked his priests and said to them,—'Our God stands in need neither of platters nor bowls, as he neither eats nor drinks, and wants nothing. But as the Church possesses many gold and silver vessels, presented by the benevolence and liberality of those who have entered it, we must with their price ransom the captives and feed them.' After having said more to the same purport, he had the sacred vessels melted, ransomed the captives gradually by paying their price to the Roman soldiers, fed them for some time, and, lastly, providing them with travelling expenses, sent them to the king of Persia, who was so much struck by this act of Acacius that he desired the Bishop to pay him a visit, which is said to have taken place by the permission of Theodosius, who allowed him to leave the synod which was at that time sitting in Constantinople."[4]

[1] *Ibid*, p. 33. [2] *Ibid*, p. 39.

[3] We must note here, that by some mistake, Rehatsek calls this Yazdagird, Yazdagird II, but the historical reference shows that he was Yazdagird I.

[4] Journal, B. B. R. A. S., XIII, pp. 42-43.

(2) Maruthas, the bishop of Mesopotamia, is said to have won the esteem of the Persian king by his piety. He cured the king of "an apparently incurable headache . . . . Maruthas, in concert with Abdas, the Persian bishop, prepared by fastings and orisons, worked the miracle of exorcising a demon who had vexed the king's son."[1] They say that this miracle of the bishop's was on the point of converting Yazdagird to Christianity.

The following three causes, which are believed to have won for the Christians the favour of Yazdagird I, are not referred to by Rehatsek.

(1) According to Procopius, Agathias and Theophanus, Arcadius, the Roman Emperor, had, by his testament, appointed Yazdagird the "protector for his son, Theodosius, a boy of tender age, instead of committing him to the charge of his uncle Honorius, or selecting a guardian for him from among his own subjects."[2] According to Cedrenus, Yazdagird was given a legacy of "1,000 pounds weight of pure gold," in return of this duty entrusted to him, "which he (Arcadius) begged his Persian brother (Yazdagird) to accept as a token of his good-will."[3] This circumstance, they say, made him inclined a little towards the Christians.

(2) "Again, Antiochus, his great favourite, whom he had sent to the court of Rome to help and advise young Theodosius, had, by his frequent letters in favour of Christianity, turned the mind of the Persian king to the religion of Christ, so much so, that according to some Roman writers he began persecuting the Zoroastrians of Persia for the sake of his Christian subjects. The influence of Antiochus had greatly led to the increase of Christian population in Persia. According to Theophanes, Yazdagird himself had shown a little inclination to turn a Christian. . . . . Professor Darmesteter[4]. . . . says, on the authority of previous writers, that it was this monarch who had allowed the first Christian synod to be held in Persia in the town of Seleucia under the leadership of the Bishop of Byzantium. Again, he had permitted the erection of a church at Ctesiphon. He employed Christian bishops on diplomatic service."[5]

(3) The Pahlavi treatise of Shatrôihâ-i-Airân[6] supplies another reason, why Yazdagird I was favourably inclined, not only towards the Christians, but also towards the Jews. That was the influence of

[1] *Ibid*, pp. 43-44. [2] Rawlinson's Seventh Oriental Monarchy (1876), p. 272. [3] *Ibid*, p. 272.
[4] Textes Pehlvis relatifs au Judaisme, Revue des Études Juives X, Vol. XVIII, p. 44.
[5] *Vide* My Aiyâdgâr-i-Zarirân, Shatrâihô-i-Airân, &c., p. 139. *Vide* my paper on "The Cities of Iran, as described in the old Pahlavi treatise of Shatrôihâ-i-Irân in" Journal, B. B. R. A. S., Vol. XX, pp. 166-167. *Vide* Rawlinson's Seventh Oriental Monarchy (1876), pp. 272-77.
[6] *Ibid*, pp. 140-142. Journal, B. B. R. A. S., Vol. XX, pp. 168-169.

his Jewish queen Shishindôkht upon him. She was, as Prof. Darmesteter says, a second Queen Esther. We read in "The History of the Jews," by Graetz,[1] that "He (Yazdagird) was exceedingly well affected towards the Jews, and at the same time favourably disposed towards the Christians." This was due to the influence of the abovementioned Jewish queen, who is mentioned in the said Pahlavi treatise to have founded several towns in Persia.

Thus, we see, that several reasons had led Yazdagird I to be favourably inclined towards the Christians. But, he was a queer man. He seems to have been wicked in disposition. If, at times, he persecuted his people for the Christians, at other times, he persecuted the latter as well. It is said, that Bishop Abdas "being carried away by too much zeal had imprudently burnt a fire temple."[2] This exasperated the king against the Christians. The above-mentioned Pahlavi treatise and several Persians books, all invariably call him *dafr*, *bazehgar*, *alathim*, *alkhashan*, &c. All these words mean, that he was harsh and cruel. The Pahlavi treatise calls him *dafr*. This word seems to be the same as Arabic *dafr* دفر, *i.e.*, stinking. By the word 'stinking', the author perhaps means simply 'bad or wicked.' But, a passage in Rehatsek's paper leads us to suspect, that, perhaps, the writer uses the word in its original sense, and means to allude to some event that may have happened in the court of the king. The passage runs thus: "When Maruthas was for the second time sent as ambassador, the Magi again played a trick to prevent his being admitted into the presence of the king; they produced a horrible stench in a locality through which he was wont to pass, and said that the Christians had done it. When Yazdegird discovered that this odour was a stratagem of the Magi, he had many of them slain, and honoured Maruthas the more."[3]

Having described at some length Yazdagard's own conduct, Rehatsek describes the religious wars between Armenia and Persia. Armenia was well nigh completely conquered by Behrâmgour (Behram V 420—440 A.D.), the son of Yazdagard.

After Yazdagard, the new form of Christianity, known as Nestorianism, began to spread in Persia. Behrâmgour was succeeded by Yazdagard II (440—457 A.D.) who was a staunch Zoroastrian, and there was a good deal of fight between the Persians under him and the Christian people of Armenia.[4]

[1] Vol. II, p. 617. [2] Journal, B. B. R. A. S., XIII, p. 44.

[3] Journal, B. B. R. A. S., XIII, pp. 43-44.

[4] In this account of Rehatsek, we find some events belonging to the reign of Yazdagird I mixed up with those in the reign of Yazdagird II. He calls the first Yezdegard, Yazdagird II. He speaks of Behram V as the son Yazdagird II.

Under Feroz (457--484 A.D.) and Kobâd[1] (487--531 A.D.), Nestorianism spread to a great extent in Persia. There were about 40 bishops in Persia proper.[2] There were several sects of the Christians then in Persia, such as the Gnostics, Monophysites, Melchites, Nestorians, and the sect of Gabriel. All these fought among themselves for supremacy.

During the reigns of Kobâd and Noshirwân, the favour or disfavour of Christianity on the part of the Persian monarchs, depended upon, whether they were in peace or hostility with the Roman Emperors. Christianity prospered in Persia, when peace ruled between the two countries. The influence of the Roman Emperors was always in favour of the Orthodox Church, and opposed to Nestorianism and other new sects that had sprung up.

In the reign of Noshirwân (531-579 A.D.), besides Christianity, the new faith of Mazdak shared the attention of the people and the king. Rehatsek's account of this Persian socialist is interesting.[3]

Noshirwân's peace with Justinian brought also peace and prosperity to the Christians in Persia. A treaty was made between these two kings. "Clauses were inserted in this treaty by which Christians were allowed to build churches, to perform their sacred ceremonies without any fear, to celebrate thanksgivings, and to chant hymns to God, as is customary among ourselves, and not to be forced to be present at Magian ceremonies, or unwillingly to worship the gods considered by the Medes to be gods. On that account, however, Christians were not to make any attempts to draw the followers of Magism to their own opinion."[4]

Noshirwân had married a Christian Princess, and their offspring, Nôushzâd, having followed the faith of his mother, rebelled against his father. Hormuzd IV, (579-590 A.D.), the son and successor of Noshirwân was dethroned by Behrâm Choubin. Noshirwân's grandson, Khosru Parviz (590-628), also married a Christian lady, Sira by name (Shirin according to Oriental authors). According to some, she was the daughter of Maurice, the Emperor of Rome, who helped Khosru in gaining the throne of Persia from Behrâm Choubin. Khosru's marriage with a Christian wife did not prove as unhappy for him, as that of Noshirwân with his Christian wife. Shirin showed "her conciliatory disposition and good sense"[5] at times, when a difference of opinion in religious matters was likely to bring about a breach between her royal husband and the Christian noblemen who attended Khosru's court. On one occasion, at a banquet given by the Persian King, Nyâtus, a Christian grandee who represent-

[1] The reign of Palas between these two kings lasted for three years (484—487).
[2] Journal, B. B. R. A. S., XIII, p. 52.
[3] Journal, B. B. R. A. S., XIII, pp. 72-73 note.
[4] *Ibid*, p. 82. [5] *Ibid*, p. 87n.

ed the Roman Emperor, was present. The King had put on rich garments, which were presented to him by Maurice, and which bore Christian crosses over them. At first Khosru was doubtful, whether he should put on these garments with Christian crosses presented by his royal father-in-law. He thought, that if he put them on, he would offend his Zoroastrian subjects. If he did not, he would offend his Christian father-in-law. "But the Dastur, who was his spiritual adviser, set all doubts at rest by assuring his sovereign that religion does not consist in dress, that he was a Zoroastrian, but also a relative of the Kayçar."[1]

Now, at this banquet, which the king attended with the garments bearing Christian crosses, "Bandvy, one of his favourite magnates, with the Barsan (or little twig held by Mobeds when praying) in his hand, arrived and stood near his sovereign, who muttered the Baj.[2] . . . When Nyâtus beheld the scene, he laid aside his bread, and was so amazed that he left the table, saying that the Bâj and the cross together was an insult to the Messiah; being after this still more enraged by receiving a slap on the face from Bandvy, he immediately departed to his camp, got his troops ready to assault the royal banquet unless the person of Bandvy were delivered to him, and despatched a message to this effect to Khosru."[3] At this critical moment, Shirin used her conciliatory powers, and brought about a settlement between Nyâtus and Bandvy.

After Khosru Parviz, we have a succession of weak Persian monarchs. In their reign, the Mahomedan power began to spread and "with the increase of the Muhammadan power the number of Christians diminished very rapidly everywhere in Persia and its dependencies."[4]

Journal, B. B. R. A. S., XIV, pp. 5—15. *9th March* 1878.

"Contributions to the study of Avestaic and Vedic Analogies." By Dr. J. Gerson Da Cunha.

The author presents in this paper "some points of contact between the two peoples (the Hindus and the Parsis), which have not yet been sufficiently investigated, and which may, perhaps, when duly inquired into, throw additional light on the common origin or identity of these two offshoots of the same Aryan stock."[5]

The author's first note is on the *barsam* (Av. *baresman*) of the Parsis, which, differing from Dr. Haug,[6] he thinks "to be identical, both in origin and sacrificial import, with the *barhis* of the Hindus," which is "a bed or layer of *kusa* grass," spread on the ground "to serve as a sacred surface on which to present the oblations."[7] The identity

[1] *Ibid.* [2] The Zoroastrian prayer for saying grace at meals (Yaçna XXXVII, 1).
[3] Journal, B. B. R. A. S., XIII, p. 88 note.
[4] Journal, B. B. R. A. S., XIII, p. 100. [5] Journal, B. B. R. A. S., XIV, p. 5.
[6] Essays on the Parsis, 2nd Ed., p. 283. [7] Journal, B. B. R. A. S., XIX, p. 7.

seems to be doubtful, though there is no doubt, that the *barsam* like the *barhis* was, and is still used in sacrificial offerings.

Ezekiel, [1] when he refers to the worshippers of the sun, and says of them, that "they put the branch to their nose," is believed to refer to these *barsam* twigs of the ancient Iránians. Strabo also refers to the *barsam* in the following sentence, when describing the customs of the Magi. "They then lay the flesh in order upon myrtle or laurel branches; the Magi touch it with slender twigs, and make incantations, pouring oil mixed with milk and honey, not into the fire, nor into the water, but upon the earth. They continue their incantations for a long time, holding in the hands a bundle of slender myrtle rods."[2] This passage of Strabo indirectly leads us to see, that the *barsam* of the Irânians does not correspond to the *barhis* of the Hindus. As the *barhis* was spread on the ground among the Hindus, so were "the myrtle or laurel branches" spread upon the ground; but *barsam* was something that was generally held in the hands.

The *barsam* played a prominent part in the recital of grace before meals. This appears both from Firdousi and from other writers. Yazdagard, the last Sassanian king, when he fled from the Arabs and concealed himself in the house of a miller, asked for the *barsam*, from his host, when he offered him his humble meals, so that he may say his grace. This, according to Firdousi, led to his disclosure and subsequent death.

We learn from other writers, that this custom of having the *barsam* in the recital of grace at meals, was, on the point of leading to a breach of peace between Khosro Parviz (Chosroe II) and his Christian brother-in-law, Nyâtus. Rehatsek, in his paper on "Christianity in the Persian dominions," thus refers to the event.[3]

"On another occasion the Persian monarch gave a banquet, and had tables arranged for that purpose, in a rose garden. He had put on the royal diadem, and Nyâtus with the philosophers sat around the table, when Khosru dressed in the jewelled Grecian robes, came down from the throne, and walking with a smile to the table took his seat. Also Bandvy, one of his favourite magnates, with the Barsan (or little twig held by Mobeds when praying) in his hand, arrived and stood near his sovereign, who muttered the Bâj. . . . . When Nyâtus beheld this scene, he laid aside his bread, and was so amazed that he left the table, saying that the Bâj and the Cross together was an insult to the Messiah."[4]

[1] Ezekiel VIII, 16—17.
[2] Strabo, Bk. XV, chap. III, 14. Hamilton and Falconer's Translation (1857) III, pp.136-137.
[3] *Vide* above, p. 251. [4] Journal. B. B. R. A. S. XIII, p. 88 note.

Passing on to another point of similarity, Dr. Da Cunha compares the Parsee *mâhrûi* (*mohrân*) to the "three sacrificial posts or three-footed post of the Veda,"[1] and to "the tripod of the Greeks, seated on which the priestess of Apollo used to deliver oracles." [2]

Dr. Da Cunha then refers to two other customs of the Parsees, *viz.*, the disposal of the dead and the *Sagdid*. These have no parallels among the Hindus, but he compares these customs with those of the Tibetans and of other people of Central Asia.

Journal, B. B. R. A. S., XV., pp. 37-64. 24*th January* 1881.

"The Alexander Myth of the Persians." By Prof. E. Rehatsek.

This paper gives an outline of the career of Alexander, as described by Firdousi, Mirkhond, Nizâmi and other Persian writers, who wrote "more than a thousand years after the Greek and Roman classics had produced their accounts of the Macedonian hero." [3] "Some Persian authors state that this celebrated sovereign was no other than the same two-horned Alexander, Sekander Dhulqarnyn, some of whose exploits are described in the Qorân (XVIII.), whilst others assert that the latter has been one of the prophets, and not the same with the Greek Alexander, Sekander Rûmy. The epithet "two-horned" is nevertheless applied unanimously to both." [4]

The descent of Alexander is differently traced. It is said, that he himself liked to trace it from the ancient gods of Greece. Some authors said, that he was the son of an Egyptian Magi. Firdousi says, that he was the son of the daughter of Philip and of Dârâ the King of Persia. Dârâ had married the daughter of Philip, but after some time, finding that she had a fetid breath, sent her away to her father, where she gave birth to Alexander. Parsee books do not speak of his Persian descent.

Rehatsek gives a long quotation from Nizâmi, whose life of Alexander in Persian verse is well-known.

We learn from this quotation of Nizâmi, the following facts, which are supported by Parsee books :—

1. Alexander burnt Zoroastrian books.

2. The ancient Fire-temples of Persia had treasuries attached to them. We learn from Firdousi and from other sources, that, to a certain extent, these treasuries attached to the Fire-temples served as Public Banks. People deposited their money there for safe custody and also borrowed money from there.

[1] Journal, B. B. R. A. S., XIV, p. 9.
[2] *Ibid.*
[3] Journal, B. B. R. A. S., XV., p. 37.
[4] *Ibid.*

3. They were seats of learning. Public libraries were attached to them, where scholars went for study.

4. Jamshedi Naôroz Jashan and the Jashan-i-Sadeh were the principal festivals that were observed in the Fire-temples with great eclat.

5. Zoroastrian women freely attended the Jashans and other public ceremonies performed in the Fire-temples.

The following lines of Nizâmi, as translated by Rehatsek,[1] describe these facts :—

The chronicler of ancient lore
Speaks thus of former times :—
When Zoroaster's Faith decayed
The fire went out, the ignicolist was burnt.
Alexander ordered the Eranians
To abandon ignolatry,
To leave their ancient Faith
To embrace that of their new king,
The Magi the fire to leave,
The fire-temples to destroy.
It was the custom of those times,
In fire-temples scholars to maintain,
The treasures there to guard,

. . . . .

It was the usage of ignicolists
To sit throughout the year with brides ;
On Jamshyd-new-year's day, and Joshan Sedeh
To renovate the temple's festivals ;
From all directions maidens young
To the temples quickly sped.
Bedecked, with ornaments, adorned,
They arrived in crowds with eagerness.
The book Barzyn,[2] the magic words of Zend
Were chanted loud, to reach the sky.

. . . . .

The well-meaning monarch now ordained :—
Rites of the Magi no one should observe,
Noble brides should show their face
To mothers and to husbands alone.
He broke the incantations, pictures all
Dispersed the Magi from the Butkhaneh,
He cleansed the world from all polluted Faiths
And kept the people orthodox.

[1] *Ibid.* p. 45. [2] Pazend.

This power in the country of Erân
Allowed no Zartosht fires to remain.

. . . . .

The fire of Mobeds he ordered
To be put out with gentleness ;
To purge the Zend-books from fatuity,
Or else to place them into libraries.[1]

. . . . .

Thence he, high minded sovereign,
Sped towards Adharabâdagân.
Wherever he the fire perceived
He quenched it and the Zend-books washed[2].
That region had a fire, rock-enshrined
Called " incomprehensible " by ignicolists
Attended by hundred gold-collared Hyrbads
Placed side by side to worship it.
That ancient flame to quench,
He ordered, and was obeyed.
Having extinguished the said fire
He marched his troops to Espahân ;
That beauteous and adorned town,
So pleasant and so rich,
Rejoiced the heart exceedingly ;
Here many fires were quenched
And their Hyrbads were abased.
There was a temple more adorned
Than pleasure gardens in the spring.
For Zartosht's Faith, and Magûs rites
Fine brides attended service there,
All captivating eyes and hearts.

Alexander is very often referred to in the Pahlavi books of the Parsees. All these books support Nizâmi, and say, that he destroyed Zoroastrian religion and literature. He is not referred to in the Avesta. The late Professor Darmesteter has, in his article " Alexandre le Grand dans le Zend-Avesta,"[3] tried to show that he is once alluded to in the Avesta. But I have shown in my paper before our Society, entitled " The Antiquity of the Avesta," that he is mistaken in taking that view (Journal, B. B. R. A. S., XIX, pp. 275-77).

[1] This is an allusion to the fact of the Persian books being translated into Greek.

[2] This is an allusion to the fact, referred to by the Shatrôihâ-i-Airân that Alexander got the Zoroastrian books thrown into water. " And at last the accursed Alexander burnt and threw into the sea the Dinkard (or the collection of religious books) of seven kings " (*vide* my Aiyâdgâr-i-Zarirân, Shatrôihâ-i-Airân, &c., p. 55).

[3] Revue des Études Grecques, 1892.

Journal, B. B. R. A. S., XVI, pp. 74-87. 16*th January* 1883.

"Neryosangh's Sanskrit Translation of the Khordah-Avesta." By Rev. A. Fuhrer, Ph. D.

The following is an abstract of the paper.[1]

"It is just a century ago that Anquetil du Perron published his French translation of the Zend-Avestâ, or the theological, physical and moral ideas of the law-giver Zarathustra, the ceremonies of the divine service which he established, and several important traits respecting the ancient history of the Persians. This translation, however, had the only merit of introducing the literary world to the chief contents of the sacred books of the Zarathustrians, and furnishing Europe with all the materials necessary for eager researches in this important field. His work, although utterly incorrect and inaccurate, nevertheless became thus a powerful stimulus to future studies of the Zend-Avestâ in a critical and philological way. Burnouf, Westergaard, Haug, Spiegel and Kossowicz, who investigated, in a scientific way, into the right understanding of the Zend-Avestà, would never have succeeded in laying down a foundation of Zend philology without Anquetil's labours. Under the manuscripts brought by him from India to Paris, there were three copies of Neryôsangh's Sanskrit translation of the Yasna, or the prayer-book of the Parsee priesthood, which translation has been published by Spiegel in 1861 at Leipzic. Of a Sanskrit translation of the Khordah-Avestâ, or the Yashts, by the same author nothing was known. Dr. Führer was fortunate to find in the libraries of Jamaspjee Dustur Minocherjee and Peshotun Dustur Behramjee three manuscripts containing the Zend and Pazend text, the Pahlavi and Sanskrit translations of the Khordah-Avestà, or the prayer-book for the daily use of the Zarathustrian laity.

Speaking extensively about the scientific value of this translation, Dr. Führer pointed out that, though Neryôsangh's Sanskrit translation is not founded upon the original Zend text, but upon the Pahlavi version, and though he committed many mistakes against the spirit of the Sanskrit language, yet his translation is an admirable memorial of mental training of the Parsee of former times, and of great value for Sanskrit as well as for Zend scholars. Finally, Dr. Führer gave some notes on the three manuscripts upon which his essay relies. The oldest and best manuscript belongs to Dustur Jamaspjee, the date is given in the Nikah or marriage-prayer, Samvat 1400=1342 A.D. In order to show the old age of the book, and the peculiarity of the Pazend characters, which are not to be found elsewhere, Dr. Führer presented a photograph of the last part of the Patet Aderbât, or a formulary of confession, which answers exactly to the Buddhist Pâtimokkha, or the

[1] Journal, B. B. R. A. S., XVI, Proceedings at the end, p. i-ii.

words of disburdenment. Of the other two manuscripts, one belongs again to Dustur Jamaspjee; it is dated Yezdezerd 1152=1783 A.D., and the other belonging to Dustur Peshotun is, according to the Persian colophon on the end, a copy of Dustur Jamaspjee's second manuscript. All three manuscripts contain essentially the same text; more important modifications are seldom to be met with, but striking similarities of special mistakes. As regards the time of Neryôsangh, little is known. According to the generally accepted traditions, Neryôsangh was the leader of the Parsees emigrating from Persia to India, and the learned Dustur who explained to king Jâderânâ (Jayadeva of Anhillavada Pattan, 745=806 A.D.), the Mazdayasnian belief in 16 *slokas*, and who consecrated the first fire-temple at Sanjâna in Samvat 777=719 A.D., and 87 Yezdezerd. But historical records for the exactness of this date are still wanting. The old age of the manuscript and the form of the Sanskrit which Neryôsangh writes, prove as distinctly as possible that he lived before the twelfth century of our era."

At the end of the paper, Dr. Führer expressed a "hope to publish very soon Neryôsangh's Sanskrit translation of the whole Khordah Avestâ."[1] That hope has not been fulfilled as yet. But, I am glad to say, that the attention of the Trustees of the Parsee Punchayet having been drawn to this desideratum, they have resolved to publish a collated edition, not only of the Sanskrit translation of the Khordah Avestâ, but of all the Sanskrit translations of Parsee books. The work has been entrusted to Mr. Sheriârji Dâdâbhoy Broacha, who, owing to his profound study of the ancient languages of the Parsees and his knowledge of the Sanskrit, is able to do full justice to the subject. The Trustees of the Parsee Punchayet have collected and placed at his disposal, as many old manuscripts as they could.

As to the subject of the date of Neryôsangh, as pointed out by Dr. Führer,[2] Dr. Haug[3] places Neryôsangh in the fifteenth century. Dr. West[4] also, at one time, placed him in the fifteenth century. But he seems to have now modified his opinion. I had the pleasure of studying this question at Dr. West's suggestion, in 1891. I have embodied the results of my studies in a paper, read before the Jarthoshti Din-ni khol karnâri Mandli on 25th April 1896.[5] I have since, published that paper, in my Iranian Essays,[6] Part III. Therein, I have placed

[1] Journal, B. B. R. A. S., XVI, p. 85. [2] *Ibid*, p. 85 note.

[3] Haug's pamphlet "Ueber den Gegenwärtigen Stand der Zend philologie," *i.e.*, "The Present State of Zend Philology," p. 6.

[4] West's edition of the Mainyo-i-Khard (1871), p. x, and his second edition of Haug's Essays (1878), p. 55. His Pahlavi Texts, Part I. S. B. E. (Vol. V.), 1880, p. 196.

[5] *Vide* the Report of the Society, published in 1902, pp. 196-200.

[6] pp. 197-203. ઈરાણી વિષયો, ભાગ ત્રીજો, પાના ૧૯૭-૨૦૩.

Neryôsang in about the twelfth century. It appears from the correspondence I had on the subject, that Dr. West also comes to the same conclusion. Dr. West says: "After considering it carefully, I have come to much the same conclusion as yourself, as to the time of Neryosang, but by a somewhat different method. . . . So we may conclude from these data, that Neryosang flourished in the latter part of the twelfth and beginning of the thirteenth century, as you have also concluded from other data."[1]

Now, as to "the accepted tradition of the Parsis,"[2] as referred to by Dr. Führer, that Neryosangh explained the Mazdayaçnân religion in fifteen or sixteen *slokas* to king Jâdê Rànâ of Sanjân, who, as Dr. Führer says, and as said by Dr. Wilson before him, may have been Jayadeva or Vanaràja, of Anhilwâd Pàttan, who ruled in Gujarât 745-804 A.D., and that he "consecrated the first Âtish Bahrâm (fire-temple) at Sanjàn in Samvat 777=A.D. 720 and 87 Yazdezerd,"[3] we find, that there are no facts to support that oral tradition.

Firstly, if the King Jàdê Rànâ, was Jayadeva of Anhilwàd Pàttan, the date (720 A.D.) of the consecration of the fire-temple as given by the above tradition and that of the reign of that Râjâ do not correspond. The Raja (A.D. 745-804 or 806) had not come to his throne, at the time, when the fire-temple is said to have been consecrated in 720 A.D., and at the time when the Parsees are said to have landed at Sanjân five years before this event.

The dates, as given by the tradition, are not correct. The date for the consecration of the fire-temple (790 A.D.), arrived at by me[4] on the authority of the historical poem, the Kisseh-i-Sanjân, and on that of other historical works of Mahomedan authors, such as the Tabakât-i-Akbari, Mirât-i Sekandari, and Târikh-i-Ferishta, falls within the period of Jayadeva's reign.

Again, if Neryosangh had been the person who consecrated the fire-temple, and if he was the celebrated author of the Sanskrit version of the Avesta, his name would have been mentioned by the author of the Kisseh-i-Sanjàn, who speaks at some length about the landing at Sanjân and about the consecration of the fire-temple. Anyhow, if we admit, that there was a Neryôsangh, who consecrated the first fire-temple at Sanjân, then, it appears, that this Neryôsangh must be quite a different person from the well-known Neryôsangh who gave us the Sanskrit versions.

[1] Dr. West's letter, dated 8th July 1891, published in my Iranian Essays, Part III, p. 100 note. [2] Journal, B. B. R. A. S., XVI, p. 84. [3] *Ibid*, pp. 84-85.

[4] *Vide* my article entitled "A Few Events and their Dates in the Early History of the Parsees" in the *East and West* of July 1903, pp. 789-800.

Vide in the "Zartôshti," Vol. I, Nos. III, IV. Vol. II, Nos. I and II, my article on this subject, entitled "A Few Events in the Early History of the Parsees and their Dates."

Journal, B. B. R. A. S., Vol. XVII., Abstract of Proceedings, pp. ii—iv, *28th January* 1887.

"The striking similarity between the episode in the Mahabharata, known as the renunciation of Yudhisthira, king of Delhi, and the renunciation of Kaikhosroo in the Shah-namah." By Professor James Darmesteter.

This paper is not printed in the Journal of our Society, but a brief outline of the paper, as given in the proceedings of our Journal, runs as follows :—

"Mr. Darmesteter said, that he wanted to propose a problem to the Meeting, the solution of which might interest the historian as to the literary relation between India and Persia. He drew attention to what he termed the striking similarity between the episode in the Mahâbhârata, known as the renunciation of Yudhisthira, king of Delhi, and the renunciation of Kaikhosroo in the Shâh-nâmah. Yudhisthira, after having re-conquered his kingdom, which had been usurped by his cousins, the Kurus, became disgusted with the world, and sought to leave it and go to heaven. He set out to heaven with his four brothers and their common wife Draupadi. They crossed the Himalayas and then saw Mount Meru, which was believed to be the seat of heaven beyond a sea of sand. In crossing this desert, Yudhisthira's brothers and wife fell one by one exhausted and died, and he entered heaven alone. In the Shâh-nâmah, Kaikhosroo, king of Persia, after avenging the murder of his parents on his grandfather, Afrâsyâb, king of Turân, left the earth disgusted, and also set out for heaven. His noblemen and several faithful followers accompanied him on his journey against his warnings. They crossed a mountain, and arrived at a desert of sand, but in passing through it they were killed, also buried, during the night in a snow storm. After the storm was over, the king was seen no more. He was supposed to have been translated to heaven during the storm. Mr. Darmesteter thought, that the similarity between the two legends was too particular to be accounted for, except by assuming, that they were borrowed from one another, or from some common source. As there was evidence that the legend of Kaikhosroo was as old as Alexander's time, and on the other side, as the style and the treatment of the Hindoo episode seemed to show it to have been a modern addition to the Mahâbhârata, the lecturer was inclined to think, that it was borrowed from Persian, either through literary connection or from old tradition. The Professor attempted to show that the Persian legend was borrowed to the last detail by the Hebrew writers of the Sepher Hayashar, a legendary history of the Jewish people, written in the Middle Ages, and applied to Patriarch Enoch."[1]

[1] Journal, B. B. R. A. S., Vol. XVII., Part I., No. XLVI, Abstract of the Society's Proceedings, pp. ii-iv. In this abstract, Prof. Darmesteter is reported to have stated, that in the Persian episode, Kaikhosroo avenged the death of his parents, but the fact is, that it was the death of his father alone that he had to avenge.

In the interesting discussion that followed, the late Hon'ble Mr. Telang entered a mild caveat against "the drawing of historical conclusions from resemblances, such as these pointed out by Mr. Darmesteter."[1] He said that "the resemblances, of course, were striking,: but the differences were, to his mind, even more striking, and he had long been of opinion, that it was highly unsafe to allow arguments founded upon them to come in conflict with conclusions arrived at in other ways."[2]

Professor Darmesteter has treated the subject at greater length in a paper which he subsequently read before "La Societé Asiatique" of Paris on 24th June 1887 under the title of "Points de Contact entre le Mahâbhârata et le Shâh-nâmah."[3] This paper in French was, as it were, a reply of the learned Professor to the mild caveat of the late Hon'ble Mr. Telang. Therein, he has supported his theory of the Persian origin of the episode.

I think, that the story of Kaikhosroo in the Shâh-nâmeh, has, in its commencement, a parallel in the story of Hamlet, as described in the early chronicles, from which Shakespeare has taken the plot of his play. I have referred to it in my Gujarâti Dâstân of the story of Kaikhosroo.

Now, this is not the only episode wherein we find striking resemblances between its Persian and Indian forms. The Persian episode of Homâe, Behe-âfrid and Arjâsp has been shown to have its parallel in the Indian episode of Sitâ and Râvan in the Râmâyan.[4]

Dr. H. G. Bhandarkar's paper[5] on the "Consideration of the date of the Mahâbhârata, in connection with the Correspondence from Col. Ellis" may be read with advantage in connection with the question of the date of the Mahâbhârata raised in this paper.

There was a time, when it was said, that the Mahâbhârata was written as late as the 16th Century A.D. In the 9th volume of the Asiatic Researches,[6] a copper-plate grant is described by Colebrooke as being given by a celebrated monarch Janamêjaya, son of Parîcshit, "at the time of a partial eclipse of the sun, which fell on a Sunday in the month of the Chaitra, when the sun was entering the northern hemisphere; the moon being in the *Nacshatra* Âswinî."[7] Now "from calculations made by the Rev. G. B. Gibbons and Professor Airy," it

[1] *Ibid*, p. iv. [2] *Ibid*.

[3] Journal Asiatique, 1887, Huitième Série, Tome X, pp. 38—75. It is also published in a separate form as an Extract (Extrait du Journal Asiatique, 1887).

[4] Mr. Pallonji Burjorji Desai's lecture before the Gujarâti Dnyân Prasârak Mandli. Report of the Society's Lectures for the season of 1888-1889. Sixth Lecture. *Vide* my paper, "The Irish Story of Cucullin and Conloch and the Persian Story of Rustâm and Sohrâb." Journal, B B. R. A. S., Vol. XVIII., pp. 317-329.

[5] Journal, B. B. R. A. S., Vol. X., pp. 81—92.

[6] Asiatic Researches, Vol. IX., pp. 438—441. [7] *Ibid*, p. 439.

was ascertained, that the eclipse referred to above "took place at about 11 a.m. on Sunday, the 7th of April 1521."[1] This, then, shows that the date of the grant is 1521 A.D.

Now, the monarch, referred to in the copper-plate, is also referred to in the Mahâbhârata. So, if the copper-plate is genuine, it evidently follows, that the Mahâbhârata was written after 1521 A.D. But the copper-plate grant was supposed to be spurious and not genuine by Colebrooke,[2] on the ground of its modern characters and incorrect language. Professor Bhandarkar also considers it spurious on the ground, that there are evidences which show that the Mahâbhârata is very old.[3] Dr. Bhandarkar's paper on the subject is very interesting. The late Dr. Bhau Daji, while making remarks on the subject, said that "he believed it could be shown that the Mahâbhârata existed as long ago as Alexander the Great, and that he believed this could be proved."[4]

Journal, B. B. R. A. S., Vol. XVII., Abstract of Proceedings, pp. V.—XI., 25th February 1887.

"The Hunza Language," By Dr. G. W. Leitner.

The late Dr. Leitner was held to be an authority on the language, manners, customs, religion, &c., of the people of Kâfiristân and Dârdistân. He has written a good deal on these people in his periodical, "The Asiatic Quarterly."

His paper on the Hunza language draws the attention of a Parsee, because it treats of the Huns, a people, who with the Dânus, were held, in the Avesta and Pahlavi books of the Parsees, to be very hostile to the Ancient Iránians. As the Dânu people, referred to in the Avesta,[5] seem to have given their names to countries and rivers like Denmark, Danube, Don, Dneiper and Dneister, so the Hunus (Huns) have given their names to distant countries like Hungary in the West and Hunza (*i.e.*, the place *jâ* جا of the Huns) in the East. According to Dr. Haug,[6] these Hunus (𐬣𐬀𐬥𐬎𐬌) (Yasht [Farvardin] XIII., 100; XIX. [Jamyâd], 86) were the Hunas of the Vishnu Purâṇa.[7] Dowson[8] says, on the authority of Wilson, that these Hunus were the White Hunas or Indo-Scythians, who in the first century of the Christian era occupied the Indian frontiers. They are referred to by Arrian, Strabo

[1] Journal, B. B. R. A. S., Vol. X., p. 81. Professor Bhandarkar's article on the date of the Mahâbhârata.

[2] Asiatic Researches. Vol. IX., p. 440.

[3] Journal, B. B. R. A. S., Vol. X. pp. 81—92.

[4] *Ibid*, Abstract of Proceedings, p. xxv.

[5] Yasht V. (Abân), 73; Yt. XIII Farvardin, 37, 38.

[6] Essays, 2nd Edition, p. 213.

[7] Wilson's Translation, pp. 177, 194.

[8] Classical Dictionary of Hindoo Mythology (1879), pp. 122.

and Ptolemy. It is against these Huns, that the Chinese had built their great wall, and it is against them, that King (Kishtâsb) Vishtâsp is supposed to have built a great wall about 720 miles in length from Beidah in Persia to Samarcand.[1] The Hunus referred to in the Avesta, seem to be the ancestors of the later Huns.

The countries of Shignan and Wakhan, referred to in this paper[2] by Dr. Leitner, were, according to Col. Gordon,[3] Zoroastrian countries up to about 500 or 700 years ago. The ruins of three old Zoroastrian fortresses are still seen at Wakhan. Lieut. Wood[4] also refers to the Zoroastrian rule over this country. The very name Wakhan is derived by some from the Avesta word Veh, which is the name of a river (Veh-rud)[5]. For a further description of this country from a Zoroastrian point of view, I would refer my readers to my lecture on the Pamirs.[6]

Journal, B. B. R. A. S., Vol. XVII., pp. 97—136, *15th and 22nd April* 1887.

"The Alleged Practice of Next-of-Kin Marriages in old Iran." By Dastur Darab Peshotan Sanjana.

This paper was read in two parts. It is the first paper by a Parsee gentleman that has appeared in the Journal of the Society since its foundation in 1804. The late respected Dastur Dr. Peshotan Byramjee Sanjânâ, the father of the learned author of this paper, and the late lamented Mr. Dhunjeebhoy Framjee Patel had submitted before the Society, in 1853, their papers on the reading of the Pahlavi Inscriptions[7] at Hâjiâbâd. Though resolved at one of the meetings of the Society,[8] that both the papers may be published, we do not find them published in the Journal, probably on account of the difficulty of getting the proper set of Pahlavi types.[9]

The subject of the paper of Dastur Darab is one, which is, at times, pointed out as a weak point in the religion of the Ancient Irânians. It is referred to, not only by the Greek, Roman and other Western

[1] Richardson's Persian Dictionary. *Vide* the word ایران "Irân." *Vide* my lecture on "The Pamirs" before the Gujarâti Dnyân Prasârak Mandli. Dnyân Prasârak Essays (1898). p. 162.

[2] Journal, B. B. R. A. S., Vol. XVII. Abstract of Proceedings, p. VI.

[3] "The Roof of the World," p. 14.

[4] Wood's Journey to the Source of the River Oxus," p. 333.

[5] Encyclopædia Brittanica. *Vide* the word Oxus.

[6] "પામીરનો મુલક:—એ એક વખતનાં જરથોશ્તી મુલકની ભૂગોળ તથા તવારિખ અને હાલમાં રશિયા સાથે ઉકેલો વાંધો, *i.e.*, The Country of the Pamirs. The History and Geography of this, at one time, a Zoroastrian country. (જ્ઞાન પ્રસારક નિબંધો) Dnyân Prasârak Essays, pp. 152—168.

[7] Journal, B. B. R. A. S., Vol. V. pp. 380 and 382, pp. 393 and 396.

[8] *Ibid*, p. 306.

[9] *Vide* Mr. Dhunjeebhoy Framjee Patel's "The Origin and Authenticity of the Arian Family of Languages" (1861), Preface, p. viii.

writers, but also by some of the Eastern writers, and among them by the copyists of the Râjatarangini,[1] the ancient History of Cashmere.[2]

Dastur Darab has tried very successfully to demonstrate the following four propositions in this paper :—

I. "That the *slight authority of some isolated passages* gleaned from the pages of Greek and Roman literature, is wholly insufficient to support the odious charge made against the old Iránians of practising consanguineous marriages in their most objectionable forms.

II. "That no trace, hint or suggestion of such a custom can be pointed out in the Avesta or in its Pahlavi Version.

III. "That the Pahlavi passages translated by a distinguished English Pahlavi *savant*,[3] and supposed to have references to such a custom, cannot be interpreted as upholding the view, that next-of-kin marriages were expressly recommended therein. That a few of the Pahlavi passages, which are alleged to contain actual references to such marriages, do not allude to social realities, but to supernatural conceptions relating to the creation of the first progenitors of mankind.

IV. "That the words of the Prophet Zarathushtra himself, which are preserved in one of the strophes of the Gâthâ, Chap. LIII., express a highly moral ideal of the marriage relation."

I. As regards the first proposition, *viz.*, the classical testimony on the subject, the author has very clearly shown, not only on the authority of later European writers, but upon that of the Greek writers themselves, that much reliance cannot be placed upon them all, that their information was, to a great extent, second-hand, and that the conclusions, that they have come to on the few facts that have come to their notice, are not sound. As shown by Rawlinson,[4] in the very classical times, some looked with suspicion to the truthfulness of their predecessors. For example, Ctesias and Plutarch have doubted the veracity of Herodotus.[5]

[1] Bk. I., Slokâs 308-309, *vide* Troyer's Râdjatarangini, Histoire des Rois du Kachmir, Tome I, Texte Sanskrit p. 34, Tome II Traduction, p. 34. That these odious charges have latterly begun to be laid by the later copyists of the Râjatarangini, is shown by the fact, that the slokas given and translated by Troyer are not given by the Cashmere manuscripts. Dr. Stein does not give them in his text (Kalhana's Râjatarangini or Chronicle of the kings of Kashmir (1892) Vol. I, p. 14). In his translation (1900, Vol. I, p. 46) he says on this point: "After this verse (sl. 307), the Calcutta and Paris editions insert two slokas, which are not found in A. L. or any Kashmirian Manuscript . . . . I have not been able to trace the or in' interpolation . . . ."

[2] *Vide* my paper on "Cashmere and the Ancient Persians." Journal, Vol. XIX., p. 243.

[3] Dr. E. W. West. S. B. E., Vol. XVIII, pp. 389-430.

[4] *Vide* Rawlinson's Herodotus, I, p. 77.

[5] Journal, B. B. R. A. S., Vol. XVII, p. 106.

We have seen above[1], that Col. Vans Kennedy, has, in his paper, entitled "Remarks on the Chronology of Persian History previous to the Conquest of Persia by Alexander the Great,"[2] tried to show, that the statements of Greek writers must not be taken as gospel truth. Looking to the statements of some classical writers, towards whom we can look with respect as some kind of authority, the only conclusion, that we can come to, is this, that, as "one swallow does not make summer," so, the cases—even if they be facts—of particular kings like Cambyses, indulging in such next-of-kin marriages, do not show at all, that the improper practice was common among the whole Persian nation. The words of Herodotus are quite clear, when he says, that the Judges, on being consulted by Cambyses for such a marriage, told him, that "they did not find any law allowing "[3] such marriages. We find Plutarch saying a similar thing about the consanguineous marriage of Artaxerxes II. He says, that he was persuaded to enter into such a marriage "without regarding the laws and opinions of the Greeks."[4] The very fact, that, as said by Plutarch, "he endeavoured to conceal it (*i.e.*, his illicit love for his daughter) on his mother's account and restrained it in public,"[5] shows, that such marriages were held improper by the Persians as a nation.

Coming to the Sassanian times, Agathias refers to the marriage of Kobâd I with his daughter Sambyke. Firdousi does not refer to such a marriage by Kobâd, but, even taking it to be a fact as stated by Agathias, we know, that Kobâd was under the influence of Mazdak, the Irânian socialist,[6] who preached, that both wealth and women must indiscriminately be the common property of all men. According to Firdousi, he preached as follows :—

"Five things turn us away from righteousness. The wise do not add any other thing to these. They are jealousy, anger, revenge and want ; and the fifth is ambition. If you conquer these five 5 *divs*, (*i.e.*, evil passions), the path of God will be clear before you. Women and wealth are (the cause of) these five for us. They destroy good religion in the world. If you wish, that no harm should come to good religion, the woman and wealth should not come in our way. It is these two, (*i.e.*, woman and wealth) that produce, jealousy, ambition, want, anger and revenge in secret. It is for these, that the Devil turns the heads of the wise. So, it is necessary that these two, (*i.e.*, woman and wealth) may be placed in the midst of all, (*i.e.*, for common participation)."[7]

[1] *Vide Supra* 171-76. [2] Transactions, L. S. B., II, pp. 115—162.

[3] Rawlinson's Herodotus Bk. III. 31.

[4] Plutarch's Lives. Life of Artaxerxes II. John and William Langhorne's Translation (1813), Vol. III, p. 468. [5] *Ibid.* [6] *Vide* Rawlinson's Seventh Great Oriental Monarchy, p. 342.

[7] I have followed the Calcutta edition of the Shâhnâmeh (Vol. III. p. 1614, ll. 7-13) for my translation. *Vide* Mohl's small edition, Vol. VI, p. 144.

II. Coming to his second proposition, with respect to the meaning of the Avesta word Khetvadatha, Dastur Darab has shown, that the word does not admit of that interpretation as the one sought to be placed upon it. He is supported on this point by Dr. E. W. West.[1] Sir Raymond West, the then learned President of our Society, in his very learned and lucid observations on the paper, suggested, that the word meant something like *svayamdatha*[2] (*i.e.*, giving up one's self in devotion to God) in Sanskrit.

III. Coming to his third proposition, the author refers to the several passages in Pahlavi relating to Khetvadatha collected by Dr. West.[3] I may here point out two more books in the Pahlavi literature, that refer to this subject, which have escaped the attention of Dr. West. One is the Aiyâdgâr-i-Zarirân,[4] wherein king Vishtâsp speaks of Hutôsh as being his wife and "like a sister" to him. The passage in this book is similar to that of the Ardâi Virâf-nâmeh, and can be similarly explained. Again, we know that the Hutôsh, who is spoken of in the Pahlavi text as the wife of Vishtâsp, is the Kaitâyun of the Shâh-nâmeh, wherein we are told, that she was the daughter of the *Kaisar* of Roum. So evidently, she cannot be the real sister of Vishtâsp.

The second book I refer to, is the unpublished Vajirihâ-i-Din in the library of the late Mr. Tehmurus Dinshaw Anklesaria. This manuscript is otherwise known as the "Rivâyat of Hêmêt-i-Ashavahishtân." (Grundriss der Iranischen Philologie II, Band I, Lieferung III. Pahlavi Literature by E. W. West, p. 105). The exact title of the work as given in the manuscript is "Pûrsishnihâ aêchand min huparvart Aêmit-i-Ashavahishtân pursit li Âtrô-goshâsp-i Mitrô-Atâsh-i-Âtrô-goshâsp," *i.e.*," Some questions asked by me, Âtrô-gôshasp of Mitrô-Atâsh of Âtrô-gôshâsp, to the saint Aêmît-i-Ashavahishtân." The passages occur on folio 148*a*, ll. 1—14 and folio 149*b*, l. 12 to folio 150*b*, l. 2.

IV. In the fourth and the last proposition, the author tries to show the high moral ideal of the marriage relation, as depicted in the 53rd chapter of the Yaçna, known as the marriage hymn of the marriage of the daughter of the Prophet.

The observations made on the paper by the President, Sir Raymond West, form in themselves, as it were, a short, learned, and interesting paper, worth reading for the light it throws upon the question from what we may call a non-Zoroastrian point of view.

The interesting paper of Dastur Darab is, as Dr. Casartelli very justly says, "quite the best and fullest statement of the modern Parsi

[1] S. B. E., XVIII., p. 427.
[2] Journal, B. B. R. A. S., XVII., Abstract of Proceedings, p. xvii.
[3] S. B. E., XVIII., pp. 389-430. [4] *Vide* my Aiyâdgâr-i-Zarirân, &c., p. 31.
Vide Dr. Geiger's "Das Yâtkâr-i-Zarirân und sein Verhältnis zum Sâh-nâme, p. 59.

view that has yet appeared"[1] on this much discussed question. It has received a reply from the pen of Dr. Casartelli.[2] In his reply, Dr. Casartelli refers to the episode of Soudâbeh and Siâvaksh, as given by Firdousi, and as referred to by Professor Italo Fizzi in his "Epopea Persiana e la Vita e i Costumi dei Tempi Eroici di Persia, Firenze 1888. (The Epic of Persia and the Manners and Customs of the Heroic Age of Persia.)."[3] The reply of Dr. Casartelli, as far as it refers to this episode, has received a rejoinder from Dastur Darab in a pamphlet entitled "Syâvaksh and Sudabeh (1892)."[4]

Journal, B. B. R. A. S., Vol. XVII., Part II, No. XLIII., Abstract of Proceedings, p. V., 16th January 1889.

"The River Karun, just opened to trade by the Persian Government." By Mr. Jivanji Jamshedji Modi.

This was the first paper that I had read before our Society. It was more of a lecture than a paper, and it was delivered as such. So it is not published in the Journal of the Society. It was afterwards published in a pamphlet form. In 1888, the Persian Government had opened the river Kârun to trade, and so the event had suggested the subject to me. I said in the beginning of the paper: "The opening of the river Kârun to trade by the Persian Government is a welcome news for England and India. Though the concessions originally granted at the instance of Sir H. D. Wolff, our present Plenipotentiary at Persia, are one by one being withdrawn, we must accept them as the thin end of the wedge, and wait for better results." We are sorry to note now, that even after waiting for a period of 17 years, the better results have not come in as yet.

The paper is divided into two parts. I. In the first part I trace the course of the river from its source downwards, on the authority of the works of travel of Sir Henry Layard, Lieutenant Selby, Commander Jones, Sir Henry Rawlinson, and other travellers, and describe the cities situated on the banks of the river, particularly dwelling on the town of Ahwâz and the ancient waterworks of the Sassanian times near it as described by Firdousi. II. In the second part I trace the name of the river Kârun to its ancient name in the Avesta and Pahlavi books.

In number 1902 (Vol. XXXVII, May 3, 1889, pp. 561-67) of the Journal of the Society of Arts, Major-Gen. Sir R. Murdoch Smith has written an interesting paper on the subject, and therein has referred to this paper and its quotations from the Shâh-nâmeh.

[1] The Babylonian and Oriental Record, Vol. III., No. 8. p. 169, July 1889.

[2] *Ibid.* This reply is published in a separate pamphlet form under the title of "What was Khvetuk-Das? and other papers." [3] *Vide* his pamphlet "Some Marriage and Funeral Customs of Ancient Persia (Re-printed from the Babylonian and Oriental Record, 1890.)"

[4] For my remarks on the Next-of-kin Marriages, referred to by Herodotus, I would refer my readers to my "કદીમ ઈરાનીઓ" (The Ancient Persians according to Herodotus and Strabo), pp. 66-68.

Journal, B. B. R. A. S., Vol. XVIII., pp. 39—46, 26*th September* 1890.

"The Game of Bail-Bat (Chowgan-gui) among the Ancient Persians, as described in the Epic of Firdousi." By Mr. Jivanji Jamshedji Modi.

In this paper, I have tried to show, that the game of cricket, which the modern Parsees of India have learnt from their rulers, is a game which was known to their ancestors, the Ancient Persians. International matches were, as now, played in Ancient Persia "under the captainship of the leading men of the rival races. They were played with an accompaniment of music, just as we see at the present day."[1]

In this paper, I have treated the subject of the play, as described by Firdousi only. But in one[2] of my lectures before the Gujaràti Dnyân Prasàrak Society, I have treated the subject at greater length,[3] and as referred to in the Pahlavi Kàr-nâmeh of Ardeshir Bâbegân and in other works.

Sir Raymond West, the then President of our Society, in his farewell address to the Society, delivered on 21st April 1892, said that the author "showed good reason for thinking that the game of polo, so much in vogue now among our young military officers at such a cost of life and limb, took its rise from the Persians in ancient days, whose chief accomplishments were 'to draw the bow, ride and tell the truth.'" He added, "I trust their successors and descendants in this country will always continue to speak the truth, ride well, and when they draw the bow, not to let it be the long bow."[4]

Journal, B. B. R. A. S., Vol. XVIII., pp. 97—108, 13*th April* 1891.

"Assyrian Relics from Nimroud in the Possession of the B. B. R. A. S." By R. P. Karkaria, Esq.

The knowledge of the ancient history of Assyria is, to a certain extent, necessary for the purpose of the ancient history of Persia. Nineveh, the ancient capital of Assyria, is counted as a city of Irân, by the Pahlavi treatise of the Shatrôihâ-i-Airân.

In this paper, which, as the then President, Sir Raymond West, said in his farewell address to the Society,[5] was a valuable paper, as it traced the source of some of the Assyrian relics of our Society, Mr. Karkaria tries to identify 10 stone slabs in the possession of the Society. At first, he thought, that they belonged either to the Layard Collection that was sent to the British Museum from Basrah *via* Bombay, and was exhibited here for some time, or to what he called

[1] Journal, B. B. R. A. S., XVIII., p. 39.

[2] અસલી ઈરાનીઓમાં તનની કસરત. (Physical Exercise among the Ancient Irânians.) *Vid.* my Irânian Essays, Part III. (1902), pp. 172—192. [3] *Ibid*, pp. 181—191.

[4] Journal, B. B. R. A. S., Vol. XVIII., Abstract of Proceedings, p. xxxix.

[5] Journal, B. B. R. A. S., XVIII., Abstract of Proceedings, p. xxxix.

the Rawlinson-Clerk Collection, *i.e.*, the collection presented by Sir Henry Rawlinson to the then Governor, Mr. (later Sir) George Clerk. Subsequently, he reported to the Society, that further investigations led him to say with certainty, that they belonged to the Rawlinson-Clerk Collection. Mr. Karkaria referred to 12 pieces of the slabs, and of these 12, he tried to identify 10. Mr. Javerilal Umiashanker Yajnik, the then Secretary, examined, with the author of the paper, the Rawlinson-Clerk Collection, and said, that he was satisfied that Mr. Karkaria had succeeded "in identifying 9 out of the 10 slabs in the possession of the Society with those forming part of the Rawlinson present."[1]

I may here point out, that Sir Henry Rawlinson had, at a Special Meeting on 7th April 1855,[2] presided over by Lord Elphinstone, delivered a *vivâ voce* discourse on his "Researches and Discoveries in Assyria and Babylonia."[3] During that discourse, "he exhibited on the table a collection of antiquities, which he had lately obtained in Chaldea, Assyria, and Babylonia, and which he was carrying to England for deposit in the British Museum."[4] So, I think that the unidentified slabs are relics exhibited by himself before our Society, and either left inadvertently here by him when re-packing his exhibits, or probably presented to the Society.[5]

Journal, B. B. R. A. S., Vol. XVIII., pp. 192—205, *26th February* 1892.

"The Divine Comedy of Dante and the Viraf-nameh of Ardai Viraf." By Mr. Jivanji Jamshedji Modi.

This paper of mine gives "a few points of striking resemblance between Dante's account of his visit to the other world, as given in his Divine Comedy, and that of the visit of the Persian Dastur, Ardâi Viràf, as given in the Pahlavi Virâf-nâmeh."[6]

The stories about the visits of pious-minded persons, in their dreams or moments of ecstasy, to the other world, are, to a certain extent, common in many countries and in many nations. M. Barthélemy has given a pretty full list of such visits in his French Viràf-nâmeh.[7]

"The visions of Viràf were made known to the European world of letters by the English translation[8] of Mr. J. A. Pope in 1818. This was an imperfect translation, not of our Pahlavi Virâf-nâmeh, but of a Persian version of it, which was, to a certain extent, mutilated by some foreign

[1] Journal, B. B. R. A. S., Vol. XVIII., p. 108.
[2] Journal, B. B. R. A. S., Vol. V, pp. 686-687.
[3] *Ibid*, pp. 478—491. [4] *Ibid*, p. 478.
[5] *Vide* above, pp. 215—218, for an account of Rawlinson's paper before the Society.
[6] Journal, B. B. R. A. S., Vol. XVII., p. 192.
[7] Livre d'Arda Viràf, Introduction, pp. xxv—xlv.
[8] Mr. Geo. Maddox, of Madras, has published in 1904, a rendering in prose-verse of this translation under the title of "The Ardâi Virâf-nâmeh, or the Revelations of Ardâi Virâf."

elements. This imperfect translation of the Persian mutilated version[1] led some to believe that the views of Virâf were derived from the Christian source of Isaiah's Ascent. But the late Dr. Haug, who was the first to write upon this subject, and whose learned presence in our midst as the Professor of Sanskrit at the Deccan College had greatly helped and encouraged Iránian studies, has clearly shown that this was not the case. M. Barthélemy, in his excellent translation (Livre d' Ardâ Virâf),[2] wherein he has dwelt upon some of these striking points of resemblance, agrees with Dr. Haug."[3]

Journal, B. B. R. A. S., Vol. XVIII., pp. 206—212, 28*th June* 1892.

"The so-called Pahlavi Origin of the Sindibad-Nameh or the Story of the Seven Wise Masters." By Mr. Jivanji Jamshedji Modi.

"Like the story of Kalila and Damna, known in Europe as 'The Fables of Bidpâi,' the story of the Sindibâd-nâmeh, known in Europe as 'The Story of the Seven Wise Masters,'" is said to have "come from the Pahlavi through an Arabic version now lost."[4] I have shown in this paper, that this story of the Sindibâd-nâmeh, otherwise known as the story of the King, the Damsel and the Prince, "has its parallel and origin in the Persian story of Kâus, Soudâbeh and Siâvakhsh," as described by Firdousi. The two stories present eight points of striking resemblance.

Journal, B. B. R. A. S., Vol. XVIII., pp. 317—329, 18*th November* 1892.

"The Irish Story of Cucullin and Conloch and the Persian Story of Rustam and Sohrab." By Mr. Jivanji Jamshedji Modi.

"There are several episodes in Firdousi's great epic of the Persians, which present striking points of resemblance to similar episodes in the epics of other nations."[5] Three such episodes are referred to above (pp. 259, 260 and 269). In this paper, I have treated the subject of a fourth episode of this kind as given by Firdousi. M. Mohl[6] was the first to point to the resemblance of this episode to that of Cucullin and Conloch in an Irish poem. I have pointed out fifteen points of striking resemblance between the Persian and the Irish episodes.[7]

[1] The oldest manuscript of this Persian Virâf-nâmeh, that has come to my notice, is dated roz Âsmân, máh Khôrdâd 997 Yazdajardi (1628 A.D.). It was written by Burjo Kamdin (bin Kaikobâd, bin Hormuzdyâr, surnamed Sanjânâ), the well-known compiler of the Revâyets. It belongs to Mr. Rustomjee Dosabhoy Sethna. It is a beautifully written manuscript, with some fine pictures of the scenes supposed to have been seen in Heaven and Hell.

[2] Introduction, p. xxvii. [3] Journal, B. B. R. A. S., Vol. XVII., pp. 204-5.

[4] Journal, B. B. R. A. S., Vol. XVII., p. 206. [5] *Ibid*, p. 317.

[6] Le Livre des Rois. Small edition, Vol. I., Preface, p. lxxi.

[7] I would here draw the attention of my readers to the Journal of the Anthropological Society of Bombay, Vol. VI., No. 7, pp. 387—402, wherein, Mr. Eruchshaw Ardeshir Parakh has referred to another such episode. He has presented a parallel between Firdousi's Story of Behrâm Chobin and the Story of Macbeth as given by Holinshed in his Chronicles of Scotland, which have given to Shakespeare the materials for the plot of his play of Macbeth.

Journal, B. B. R. A. S., Vol. XIX., pp. 1—23, *24th November* 1893.

"The Extant Codices of the Pahlavi Nirangistan." By Dastur Darab Peshotan Sanjana.

This paper is somewhat connected with the auspicious event of Her late Majesty's Golden Jubilee. On 2nd February 1887, the late Professor James Darmesteter, who was then on a visit to India, delivered at a meeting, presided over by the late Sir Jamsetji Jejeebhoy, Third Baronet, a lecture on "Parseeism: its Place in History." In that lecture he recommended the publication of the Pahlavi literature of the Parsees. He said, "What we require is not a translation of the books I have mentioned, but the mere text of them[1] . . . In a few days you are going to celebrate the Jubilee of the Queen-Empress, the golden marriage of India with England, the golden marriage of the East with Western civilization. You will join with your usual munificence in the public festivities; but if you want to impress particularly the Parsee mark upon your demonstration of loyalty, what better opportunity could be found at the same time to perform a duty to your race and to do honour to the Queen of the West than by showing how deeply you have imbibed the Western spirit of science and research? In your banquets it is usual to have three toasts—one to Ormazd and the Amashaspands, the second to the Ferouers of the ancestors, the third to the Queen-Empress. Let, therefore, the Ferouers of the ancestors have here also their part in the festival; let the revival of your literature, let the raising of the Jubilee Pahlavi Fund be the Parsee Memorial to the Jubilee of the Queen-Empress!"[2]

The words of the late Professor did not fall on deaf years. Dastur Darab, the author of the paper under review, the late lamented Dastur Pheroze Jamaspji Jamaspasana and myself formed ourselves, under the kind guidance of our guide, friend and philosopher, Mr. K. R. Cama, into a Committee to collect funds for the purpose. I remember having gone with the above two gentlemen to the houses of several rich Parsee gentlemen for the purpose. Our work, no sooner than commenced, was kindly undertaken by the Trustees of the Parsee Punchàyet, who started a fund for the purpose under the name of "The Victoria Jubilee Pahlavi Text Fund," and nominated a Committee for the selection of books to be printed. The Nirangistân was the first book published under the auspices of the above Fund. It is printed by the photo-zinco process. Dastur Darab was the first Honorary Secretary of The Victoria Jubilee Pahlavi Text Fund Committee, and, as such, has edited the book. The second book published from this Fund is the Màdigàn-i-Hazàr Dadistân, and is edited by me. The third,

[1] *Vide* the Lecture printed at the *Bombay Gazette* Press, p. 14. *Vide* the *Bombay Gazette* of 5th February 1887.

[2] *Ibid*, pp. 15-16.

that is being published, is the Grand Bundehesh, belonging to the late Mr. Tehmurus Dinshaw Anklesaria, who was a great Pahlavi scholar, and whose death, last year, is a great loss to the cause of Pahlavi studies.

Now, the paper under review was written by Dastur Darab as an introduction to the above volume of the Nirangistân. As Dr. West[1] says, the "Pahlavi literature may be divided into three classes. I. First, Pahlavi translations of Avesta texts, intermingled with Pahlavi commentory. II. Second, purely Pahlavi texts on religious subjects, or connected with religion. III. Third, Pahlavi texts on miscellaneous subjects not intimately connected with religion."[1] The Nirangistân is a book which falls under the first head, and "is chiefly concerned with the ritual in Sassanian times. the *drons*. temperance, recital of the Gâthâs, effect of the sin of a priest on rites, the Gâhs and Gâhânbârs, holy-water, the *kusti* and *sudra*, *barsom*, firewood and Hôm-mortar."[2]

The manuscript of the Nirangistan, published as said above, belongs to Dastur Hoshang Jâmâsp of Poona. It is incomplete, and a part of the last portion is replaced from an old manuscript belonging to the late Mr. Tehemurus Dinshaw Anklesaria. As pointed out by Dastur Darab, the first part of the book, which generally goes under the name of the Nirangistan, forms a part of another book called Airpatastân.

Since the publication of the Nirangistân, the late Dr. Darmesteter has published the transliteration and translation of the Avesta portion of the book in his Zend Avesta.[3] The publication of this text and translation is followed by that of "Index Verborum of the Fragments of the Avesta" by Mr. Montgomery Schuyler, as the fourth volume of the Columbia University Indo-Iranian series, edited by Prof. A. V. W. Jackson. The object of this publication is, as said by its author, "to render easily accessible a large body of lexicographical material hitherto almost neglected by scholars."[4]

Journal, B. B. R. A. S., Vol. XIX., pp. 58--75, 17*th December* 1894.

"The Bas-relief of Behram Gour (Behram V.) at Naksh-i-Rustam and his Marriage with an Indian Princess" By Mr. Jivanji Jamshedji Modi.

"The sculptures at Naksh-i-Rustam, or on the rock of the mountain, otherwise known as the Mountain of Sepulchres, have long been 'the subjects of discussion with the traveller, the artist and the antiquary.'".[5] In this paper, firstly, I have tried "to determine the event which is intended to be commemorated in the first of the lower bas-reliefs"[6] of these sculptures; secondly, I have described the event so commemorated; and, thirdly, I have examined how far (*a*)

[1] Grundriss der Iranischen Philologie II. Band 1 Lieferung III. Pahlavi Literature, p. 81.
[2] *Ibid*, p. 86. [3] Le Zend Avesta, Vol. III., pp. 78—148. *Vide* also pp. ciii-civ of his Preface.
[4] Preface, p. ix. [5] Journal, B. B. R. A. S., Vol. XIX., p. 58. [6] *Ibid*.

Indian books, (*b*) Indian coins, and (*c*) Indian monuments support the description. I have given an interpretation of the bas-relief, that is quite different from that given by Kerr Porter, who thought, that the bas-relief illustrated, what he calls the "royal union," *i.e.*, the union of king Behrâm Gour with his queen after a short estrangement, as related by Malcolm, in a story, which, for the sake of convenience, we may call, the story of "Nekoo karden z pur kurden est," *i.e.*, "Practice makes perfect."[1] I have tried to show in this paper, that it illustrates Behrâm Gour's marriage with the Indian princess Sepihnud.

Journal, B. B. R. A. S., Vol. XIX., pp. 215—223, 15*th October* 1875.

"The Teleology of the Pahlavi Shikand Gumanik Vijar and Cicero's De Natura Deorum." By R. P. Karkaria, Esq.

In this paper, the author tries to show, that the argument used in the "refutation of Atheism contained in the fifth and sixth chapters"[2] of the Parsee book Shikand Gumânik Vijâr, "presents a very close resemblance to the argument of M. Lucilius Balbus, the spokesman of the Stoics in the famous dialogue of Cicero, called the De Natura Deorum."[3] Mr. Karkaria says, "I do not say anything about the later writer (Mardân-farukh, the author of the Shikand Gumânik Vijâr) borrowing from the earlier (Cicero). . . . . Mardan says explicitly that he got these arguments from the Dinkard of Adirfrobag. . . . Probably, the editors of the Dinkard might have seen Greek philosophical works."[4]

I think, that "The Argument from Design", used in the Shikand Gumânik Vijâr, was suggested to the author, in a natural way, as it is the most common argument used in the question of "The Existence of the Deity." It is used in an indirect way, in the form of questions in the older writings of the Avesta, the Gâthâs(Yaçna, ch.44).

The subject proper of the paper has a very long introduction, and in it, the author quotes at some length the views of Dr. West on the subject of the final loss of the Irânian literature. Dr. West[5] is of opinion, that the conquered Parsees of Irân were equally responsible with the conquering Arabs for the loss of their literature. I differ from Dr. West, and repeat here what I said about 13 years ago in my review in the "*Times of India*"[6] of his translation of the Dinkard. "It is very true that the first inroad of the Arabs did not do all the mischief at once. It was a slow and gradual work, and by the end of the second century after the conquest, the work of destruction was com-

[1] In the Conversazione, held in connection with the Centenary of our Society, on 18th January 1905, Mr. Kaikhusru Ardesbir Chinoy exhibited some very excellent old Persian pictures, illustrating several scenes from the Shâh-nâmeh. Among these, there was one, which beautifully illustrated this story.

[2] Journal, B. B. R. A. S., XIX., p. 220. [3] *Ibid*, p. 221. [4] *Ibid*, p. 223.

[5] S. B. E., Vol. XXXVII., Introduction. [6] 3rd November 1892.

plete. Hence the necessity for Dastur Âdar Farobag and other writers to collect in the Dinkard, at least the details of the contents of the lost books . . . . fresh in the memory of many persons at the time. If the twenty-one *Nusks* were all extant at the time when Âdar Farobag wrote, whence the necessity for writing the contents ? If the zeal for preserving this literature prompted them to do the work, why did they do it half-heartedly by merely preserving the contents and not by making copies and distributing them ? "

Journal, B. B. R. A. S., Vol. XIX., pp. 224—236, 21*st November* 1895.

"Firdousi on the Indian Origin of the Game of Chess." By Mr. Jivanji Jamshedji Modi.

" India is the original home of the game of chess. From India, it was introduced into Persia in the time of the Great Noushirwân or Chosroes I. The Arabs, who subsequently conquered Persia, introduced it into Spain on their conquest of the country. Spain spread it into other parts of Europe. Though some seem to be of opinion, that it was the Crusaders who brought it from the East, many are of opinion, that it was known in Europe long before the Crusades, and that it was known in England before the Norman Conquest. As to its Indian origin, Sir William Jones in his paper [1] on 'The Indian Game of Chess' says: 'If evidence be required to prove that chess was invented by the Hindus, we may be satisfied with the testimony of the Persians.' " [2]

In this paper, I have adduced the testimony of one of the greatest, if not the greatest, Persian writers, *viz.*, Firdousi.

I. At first, I describe the story of Firdousi which led to the discovery of the game. The story says, that in a war between two brother princes, one died of sheer exhaustion and fatigue. Their royal mother suspected the surviving brother of killing his brother in the battle, and did not believe, that, he, being shut up on all sides by the enemy, was killed by exhaustion and fatigue. The surviving brother, in order to convince his mother, that, in a battle, a king can be so shut up on all sides and die of sheer exhaustion and fatigue, got this game invented.

II. Secondly, I give Firdousi's description of the game.

III. Thirdly, I describe the circumstances, under which the game was introduced into Persia from India in the time of the Great Noushirwân, who, in his turn, gave to India the game of "Nard," a kind of backgammon.

IV. Fourthly, I give "two other versions about the origin and discovery of the game of chess" as "given by Caxton, the first English printer, in his book 'The Game of Chess.' " [3]

[1] Asiatic Researches, Vol. II., p. 159. [2] Journal, B. B. R. A. S., Vol. XIX., p. 224.
[3] *Ibid*, p. 234.

Journal, B. B. R. A. S., Vol. XIX., pp. 237—248, *9th December* 1895.

"Cashmere and the Ancient Persians." By Jivanji Jamshedji Modi.

The subject of the paper was suggested to me by a visit in May 1895 to Cashmere, where I had heard many of the stories of the Ancient Persians as described by Firdousi. Cashmere was once a Zoroastrian country. In this paper, I have spoken at some length on the following subjects :—

1. References to the country of Cashmere in the Avesta and Pahlavi books.[1]

2. References to the country in the Shâh-nâmeh of Firdousi.[2]

3. The relation of the Ancient Persians to Cashmere, referred to by Wilson[3] in his "Essay on the Hindu History of Kashmir."[4]

4. The Shâh-nâmeh stories heard in Cashmere.[5]

5. The Cypress of Kashmar.[6]

Journal, B. B. R. A. S., Vol. XIX., pp. 263—287, *26th June* 1896.

"The Antiquity of the Avesta." By Mr. Jivanji Jamshedji Modi.

This paper[7] is a reply to the late lamented Dr. Darmesteter, who, in his Zend Avesta,[8] has tried to bring down the antiquity of the Avesta to as late as the third century after Christ. His assertions had, as the late Professor Max Müller said, thrown a bomb-shell "into the peaceful camp of Oriental scholars."[9]

I have not treated "the great question of the antiquity of the Avesta from all standpoints," but have aimed to examine it from a few standpoints suggested by Darmesteter as facts of historical and external evidence.

I have alluded to this subject at some length, in my remarks on Mr. Erskine's paper on "The Sacred Books and Religion of the Parsees."[10]

Professor Darmesteter "dwells upon what he calls two kinds of evidence. Firstly, the historical evidence as collected from the Dinkard and the letter of Tansar, the Dastur of Ardeshir Babegân, to the king of Tabaristân. Secondly, the internal evidence as presented by the Avesta itself."[11] I examine these two kinds of evidence as produced by the Professor, and try to show, that they do not lead to the conclusion, arrived at by him, that the addition to the Avesta was continued to be made as late as the third century after Christ.

[1] Journal, B. B. R. A. S., Vol XIX., pp. 237—239. [2] *Ibid*, pp. 239—241. [3] *Ibid*, pp. 241—245. [4] *Ibid*, p. 241. Asiatic Researches, Vol. XV. [5] *Ibid*, pp. 245—247. [6] *Ibid*, pp. 247—248.

[7] This paper has been translated into French by Mademoiselle Menant and published in the "Revue de l' Histoire des Religions." (1897) Tome XXXV. pp. 1—29.

[8] Le Zend Avesta III, pp. VII—LXII. The Vendidad, S. B. E., Vol. IV, 2nd edition. Introduction, pp. xxxvii—li. [9] The Contemporary Review, Dec. 1893. Vol. XLIV., p. 869—Article entitled "The Date of the Zend Avesta."

[10] *Viae supra*, pp. 177—182. [11] Journal, B. B. R. A. S., Vol. XIX., p. 263.

Journal, B. B. R. A. S., Vol. XIX., pp. 289—305, *8th August* 1896.

"Akbar and the Parsees." By Mr. R. P. Karkaria.

This paper gives an account of "the earnest enquiry," which Akbar made "after the best religion for men" and of his attempt "to set up a new faith,"[1] as described by Badaoni in his Muntakhab al Tawarikh and by Abu Fazl in his Akbar-nâmeh. While referring to the influence of the religion of the Parsees on Akbar, Mr. Karkaria examines the tradition among the Parsees, that Dastur Meherji Rânâ of Naôsari had explained to Akbar the religion of the Parsees, and not only decides against the tradition, but says, that the Dastur was an obscure priest and not able to explain the religion to Akbar. This paper has received a reply from me in two papers, entitled "The Parsees at the Court of Akbar and Dastur Meherji Rânâ"[2] and "Notes of Anquetil Du Perron (1755—61) on King Akbar and Dastur Meherji Rânâ."[3] As I have said, in the first of my above two papers, "this is not the first time, that doubts have been raised against Dastur Meherji Rânâ's mission to the Court of Akbar. Unfortunately, latterly there has been a division of parties among the priesthood of Naôsâri. Some are opposed to the family of Meherji Rânâ and its associates. Some of them have, ere this, raised such doubts, several times, in some of the Gujarâti papers. But it was for the first time, that the question was transferred by the above-mentioned paper to the platform of this Society."[4]

A good deal of want of courtesy is shewn in this paper by its author to Dastur Meherji Rânâ. Not only that, but the same kind of discourtesy is extended to the living members of the Meherji Rânâ family, and gross injustice done to them. He has perverted the names of the books stated in the papers, that were passed into his hands by some members of the family. I repeat what I have said in one[5] of my above papers of reply.

"To say the least, this is very unfair, and I beg to say, that Mr. Karkaria, if not for his own sake, for the sake of the Society in whose Journal he has published this libel, owes an explanation to the members of the family of Dastur Meherji Rana, who, he thinks, have made 'a pretended claim' for their ancestor." No explanation has come yet, and it is a pity, that the pages of the Journal of the Society have been allowed to remain sullied in this way. The controversy raised by this paper was soon transferred again to the daily papers of Bombay, and party spirit ran high. The hospitality of their editorial columns, extended to their contributor by the two well-known Bombay English dailies, was equally abused, and the Dastur, who was termed "an obscure priest in a corner of Gujarat" in the above paper, was abused as a charlatan and an impostor.

[1] Journal, B. B. R. A. S., XIX, p. 289. [2] Journal, B. B. R. A. S., XXI., pp. 69-245.
[3] *Ibid*, pp. 537-551. [4] *Ibid*, pp. 71-72. [5] Journal, B. B. R. A. S., XXI., p. 157.

Journal, B. B. R. A. S., Vol. XIX, Abstract of Proceedings, p. XCV, 8th April 1897.

"Zoroastrian Religion and Comte's Religion of Humanity." By Mr. R. P. Karkaria.

This paper is not printed in the Journal of the Society. It compared Comte's system of naming the celebrities in the different departments of human activity to a custom of the Ancient Persians, as illustrated in the Farvardin Yasht (Yt. XIII). The custom is still prevalent. The formulæ, in which the departed worthies are commemorated, have been changed from time to time. I have described the custom and given the formulæ at some length in my paper on "The Funeral Ceremonies of the Parsees, their Origin and Explanation." [1] I am told, that the custom is somewhat similar to the one prevailing at the University of Oxford, where during the bidding prayer, they make "a long statement recalling the gifts of benefactors to the University in times past. It is really a thanksgiving to Almighty God for the gifts of the worthies of old, who gave land and money to endow the Colleges and the University. The list of benefactors is read out in full on the high festivals in the University Church only." [2]

Journal, B. B. R. A. S., Vol. XIX., pp. 365—374, 17*th June* 1897.

"The Belief about the Future of the Soul among the Ancient Egyptians and Iranians." By Mr. Jivanji Jamshedji Modi.

It was the recently published book, "Religion of the Ancient Egyptians," by Alfred Wiedemann, that had suggested to me the subject of my paper. I examine in this paper, the several points of similarity in the belief of the Ancient Egyptians and the Ancient Persians about the future of the soul. These two ancient nations agreed, to a certain extent in their belief about (I) the Immortality of the soul; (II) Judgment after Death; and (III) Resurrection.

I. As to the first—the Immortality of the Soul—"the Ancient Persians believed in the existence of five spiritual parts in a man." [3] They were (1) Anghû, *i.e.*, life or vitality; (2) Daêna, *i.e.*, conscience or the inherent power which reminds him to do good and shun evil; (3) Baodhangh, *i.e.*, the intellectual faculty; (4) Urvâna, *i.e.*, the soul, which has the freedom to choose good or evil; and (5) Fravashi, *i.e.*, the guiding spirit. Of these five spiritual parts mentioned in the Avesta, the Anghû corresponded with the Sekhem; the Daêna, with the Âb; the Urvâna, with the Bâ; and the Fravashi, with the Ka of the Egyptians. As to the fifth spiritual part—the Baodhangh—there is such a slight

[1] Pp. 30-32. *Vide* Journal of the Anthropological Society of Bombay, Vol. II, No. 7, pp. 434—436. [2] *Ibid*, p. 31, note 26. *Vide* the above Journal, p. 435, note 26.
[3] Journal, B. B. R. A. S., Vol. XIX., p. 366.

shade of difference between it and the Daêna, that it cannot clearly be identified with any spiritual element of the Egyptians.

II. Coming to the belief about the judgment after death, we find, that among the Egyptians, (*a*) "Osiris the many-eyed," (*b*) who is a Divinity of the Sun, (*c*) and who holds a sceptre in his hand as a symbol of authority, (*d*) weighs in a scale the actions of a soul, (*e*) that is led before it by Anubis. Among the Persians, it is (*a*) the thousand-eyed Mithra, (*b*) the angel of light and an associate of the sun, (*c*) who holds a *vazra*, *i.e.*, a mace or club, in his hand, as a symbol of authority, who (*d*) weighs in a scale the actions of a soul (*e*) led before him by Sraôsha, Râm and Beharâm.

(*f*) As Osiris, among the Egyptians, is helped by some gods, so is Mithra, among the Persians, helped by some Yazatas, or angels. (*g*) As Anubis is in charge of the scales among the Egyptians, so Rashnê is in charge of it among the Persians. (*h*) Horus among the Egyptians and Âstâd among the Persians superintend the work of weighing the actions. (*i*) Among the Egyptians, Thoth acts as a scribe. Among the Persians, Mithra himself acts as an account-taker. (*j*) Among both these nations, the souls go to heaven, uttering some words of felicitation.

III. Coming to the third point of the similarity of ideas, *viz.*, Resurrection, we find that both these ancient nations thought it necessary to preserve some part of the body for the purpose of the resurrection. The Egyptians preserved the whole body—a fact, which led them to the custom of mummying the bodies in various ways. The Ancient Persians preserved the bones—a fact, which led them to the custom of having Astodâns or ossuaries, as referred to above.[1]

"Now arises the question, How shall we account for the above points of marked similarity between the beliefs of these two ancient nations, the Egyptians and the Persians? The answer is, that both these nations had their homes in Central Asia. The ancient Egyptians were Asiatics by origin and not Africans."[2]

Journal, B. B. R. A. S., Vol. XX., pp. 156—190. *26th January* 1899.

"The Cities of Iran, as described in the Old Pahlavi Treatise of Shatroiha-i-Iran." By Mr. Jivanji Jamshedji Modi.

"'Shatrôihâ-i-Iran,' or 'The Cities of Iran,' is the name of an old Pahlavi treatise, lately published for the first time, with some other Pahlavi treatises, by the late lamented Dastur Dr. Jamaspji Minocheherji. The book purports to give the names of the founders of some of the known cities of Western and Central Asia, that had, at one time or another, passed into the hands of the ancient Persians."[3] It has been for

[1] *Vide supra*, pp. 167-168. [2] Journal, B. B. R. A. S., Vol. XIX., p. 373.
[3] Journal, B. B. R. A. S., Vol. XX., p. 156.

the first time transliterated in Gujarâti characters, and translated with notes into Gujarâti and English by me.[1] In this paper, I identify some of the cities named in the treatise, and "give a few points of geographical and historical importance about them as presented "[2] by it.

The treatise seems to have been written in the eighth or ninth century after Christ.

Of the several new facts of historical and geographical importance presented by the Pahlavi treatise and pointed out in this paper, the following are very important :—

I.—The treatise leads us to determine, that the library of Shapigân, the second of the two State libraries of ancient Persia, was located in a Fire temple at Samarcand.

II.—Yazdagird I, the son of Shapur III, is called *dafr*, *bazehgar*, *al-athim*, *al-khashan*, *faru-bandehgar*, &c., meaning, cruel or hard, by most of the Oriental writers, the reason being, that, being somewhat under the influence of Hebrew and Christian priests, he was not well disposed towards his own Persian subjects. This treatise presents an additional reason ; and it is this, that he was under the influence of a Jewish wife named Shishin-dokht.

III.—There are several places connected with the name of Zoroaster, either as his native country, or as his country of adoption for the propagation of his religion. This treatise gives an additional name, *viz.*, that of Âmui. It is a town in the province of Raga, and Zoroaster is said to be of that place. (*Zarthusht min zak madinâ vehvunt.*) [3]

Journal, B. B. R. A. S., XX, pp. 217-233, 24*th March* 1899.

"The Etymology of the names of a few towns of Central and Western Asia, as given by Eastern writers." By Mr. Jivanji Jamshedji Modi.

In this paper, I have given the etymology of the names of some of the cities, mentioned in the newly published Pahlavi treatise of Shatrôihâ-i-Irân, referred to in my previous paper. I have divided my subject into two parts. I.—I have taken up those cities, the etymology of whose names has not been given upto now. II.—I have taken up those cities, the etymology of whose names has been given by Oriental writers, and have examined, how far that etymology is correct.

Under the first head, I suggest the etymology of the names of the following towns :—Ctesiphon, Bâbylon, Bost, Zarenj, Kermân, Gour or Jour, Ahwâz, Simlan or Semirân, Askar, and Nineveh.

Under the second head, I describe and examine the etymology of the names of the following towns, as given by other writers:—Samarkand, Balkh, Herat, Pusheng, Tus, Nishâpur, Nehavend, Sharn, Farika, Nahartirak and Âtaropâtakan.

[1] *Vide* my Aiyâdgâr-i-Zarirân, Shatrôihâ-i-Airan, va Afdya va Sahigiya-i-Seistân.

[2] Journal, B. B. R. A. S., Vol. XX, p. 156. [3] Journal, B. B. R. A. S., XX, p. 189.

Journal, B. B. R. A. S., Vol. XX, Abstract of Proceedings, p. lxxvi, 15th March 1900.

"A New Medal of King Behram Gour of Persia." By Mr. Jivanji Jamshedji Modi.

This paper is not printed in the Journal of the Society, as, with the permission of the Secretary, it was published, as my contribution, in the Cama Memorial Volume.[1] The subject of this paper is a bronze medal belonging to Mr. J. H. Robinson of Bombay. The medal bears no inscription. I had shown it to the late lamented Dr. Gerson da Cunha, who was an authority here in Numismatics, and he was not sure, whether it was genuine. The late lamented M. Drouin of Paris latterly thought, that it was not genuine. The object of my paper was, to determine what the figures on the medal were, and to whom it belonged. I have shown, that the figures lead us to think, that the medal depicted one of the chase-scenes of King Behrâm Gour. Most probably, it is the scene, wherein he goes to hunt a wild dragon and a wolf, at the desire of the Indian king (Shengel), whose daughter Sepihnoud, he latterly marries. For a fuller description of this scene I would refer my readers to my paper on "The Bas-relief of Behrâm Gour at Naksh-i-Rustam and his marriage with an Indian Princess."[2]

Journal, B. B. R. A. S., XXI, Abstract of Proceedings, p. III and pp. 4-18, *23rd August* 1900.

"Sanjan, a Parsee town on the B. B. & C. I. Railway, 94 miles from Bombay. Is it the Sindan of the Arab Geographers of the 10th and 11th Centuries, as stated by the "Bombay Gazetteer" (Vol. XIV. Thana)? Is it the town Hanjamana (हंजमन) referred to in the three Silhara Grants* of the 10th and 11th Centuries? [* (a) Asiatic Researches I, p. 357. Paper by General Carnac. (b) Indian Antiquary V, p. 276. Paper by Dr. Buhler. (c) Indian Antiquary IX, p. 33. Paper by Mr. Justice Telang.]

I have tried to show in this paper, firstly, (i) that the Sindân of the Arab geographers and writers—Ibn Haukal, Edrisi, Maçoudi, Istakhri and Albiruni—is not the modern Sanjân of Konkan, but is the Sindân of Cutch; and secondly (ii) that the town of Hanjamana, referred to in some of the Silhâra grants, is the Parsee town of Sanjân, whose foundation by the Parsees is referred to in the Kisseh-i-Sanjân. In connection with the first question, I have shown, that according to the Parsee tradition, as noted in the Kisseh-i-Sanjân, it was the Parsees who named the town Sanjân.

[1] The K. R. Cama Memorial Volume, in honour of Mr. Kharshedji Rustamji Cama, on the occasion of his seventieth birthday, edited by Jivanji Jamshedji Modi, pp. 225-30.

[2] Journal, B. B. R. A. S., XIX. pp. 58-75. *Vide supra*, pp. 271-272.

Journal, B. B. R. A. S., XXI., pp. 34-48, *12th March* 1901.

"Time and place of the Composition of the Gathas." By Mr. P. A Wadia, M.A.

This paper is a reply to Prof. Darmesteter's "theory, that the Gathas were only a re-edition of ancient texts made during the early years of the Christian era."[1] The author mainly appeals to the following points in support of his conclusion, that the Gathas were composed in or about the ninth century B. C., and that their birth place was Media :—

I.—The archaic form of the language. The Gathas "appeal to the people at large, and seem to have been sung before large assemblages, instead of being confined to a few savants."[2] So, if written in the first century after Christ, they were written in a language, dead at the time. If so, they cannot appeal to the people at large. This leads us to the conclusion, that they were written long before the first century after Christ,—written at a time, when the language was still living.

II.—"The historical allusions found in the songs seem to point likewise to an early date ; if they were composed so late as the time which Darmesteter suggests, we might have found in them at least some evidence of the history of later times ; but of this we have no trace."[3]

III.—"The organization of the people, such as it is found in the Gathas, points to a time when settled agricultural life was not yet the order of the day, when a regular political government had not yet been in existence, when tribe fought against tribe for years and years without any decisive result, when the followers of the religion of Mazda had often to endure the hardships of failure and defeat."[4] All these point to a very early date.

IV.—"There is no trace here (in the Gathas) of the Acheamenide Empire."[5] So, they must have been written long before the Achemenian times.

Darmesteter has laid great stress upon the supposed identification of the Vohu Mano of the Avesta with the Logos of the Neo-Platonic philosophy of Philo-Judæus, and has inferred from that supposed identification, that Ardeshir Bâbegân's chief minister and priest Tansar, who, according to Maçoudi, was a Platonist, and who had a hand in the collection of the Avesta at the direction of his royal master, must have put in, in the Avesta, a good deal of his own, as collected from Greek philosophy. Mr. Wadia opposes this inference by saying, that (*a*) "the conception of Vohu Mano is not so well developed in the Gathas as it is in the later Avestaic writings, that in the Gathas it is wavering between an abstract attribute of the Deity and a personified being . . . . . (*b*) and that the theory of the Vohu Mano and the rest of the Amshaspands is mentioned in a passage of the 'Isis and Osiris'"[6] of Plutarch.

[1] Journal B. B. R. A. S., XXI, p. 35. [2] *Ibid.* [3] *Ibid.* [4] *Ibid.* [5] *Ibid.* [6] *Ibid.*

For further elucidation of the subject of Vohu Mano and Logos, I would refer my readers to the studied writings of Rev. Dr. Mills in the several issues of the Asiatic Quarterly and of other periodicals during the last few years, and to his recent book; entitled, "Zarathushtra and the Greeks."

Mr. Wadia refers to the political condition of the country as described in the Gathas, and determines, that the people "were nomadic in their organization,"[1] that their "struggles were for the most part internecine,"[2] and that there is "no mention of a formidable authority external to the tribes."[3] Such a condition evidently points to pre-Achemenian times for the composition of the Gathas.

We have the additional authority of the traditional Pahlavi writings to show, that the struggles of Zoroaster, referred to in the Gathas, were more tribal than external, that the worst enemies of Zoroaster and his religion were his own kith and kin, and that the Ushis, Kiks and Karaps, who most opposed him, formed the tribes or families nearly related to him.[4]

Thus determining the political condition of the people, Mr. Wadia takes advantage of the new theory of the original home of the Aryan race—a theory which originated by Latham and seconded by Penka, Taylor, and Rendall, and most ably supported by Schrader, places the home of the Aryans in Europe instead of in Asia,—and following the history of the Assyrians, Medes and Persians as given by Herodotus, places the age of the Gâthâs at a time about or before the 7th century before Christ, and its place in Media. Well, we must note here, that the last word on the origin or the cradle of the Aryan race is not said yet. Even the theory of Europe being its home, shifts its ground hither and thither.

About the birthplace of Zoroastrianism, Mr. Wadia says, "it is not even true that tradition assigns Bactria as the birthplace of Zoroastrianism."[5] I think, in the consideration of this matter, we must not mix up the question of the birthplace of Zoroaster with that of the birthplace of Zoroastrianism. "The consensus of opinion is," I think, "that Zoroaster belonged both to the East and to the West of Irân, to Bactria and to Media; that Bactria, where the then king of Irân, King Gushtâsp, ruled, was the place of his ministry, the place where he promulgated his religion under the protection and with the help of the ruler; and that Media was the place of his birth, his childhood, his inspiration."[6]

[1] *Ibid*, p. 38. [2] *Ibid.* [3] *Ibid.*

[4] *Cf.* my paper entitled "An Avesta Amulet" before the Anthropological Society of Bombay (Journal Vol. V, No. 7, pp. 418-425).

[5] Journal, B. B. R. A. S., Vol. XXI., p. 42.

[6] *Vide* my paper on "The Cities of Iran" (Journal, B. B. R. A. S., Vol. XX, p. 188).

I would here refer my readers to an excellent dissertation on the subject by Prof. Geiger, in his Essay on "The Home and Age of the Avesta."[1] It is a very able reply to Prof. Harlez and to Prof. Spiegel, who bring down the age of Zoroaster to later times, and who point to the West of Iran as the Home of the Avesta. Dr. Geiger places the age in pre-Achemenian and pre-Median times and the home in the East of Irân. What Dr. Geiger says at the end of his essay is true, that "the question as regards the home and age of the Avesta is at present the standing difficulty of Iránian Philology, and will, I surmise, remain so for a long time."[2] Prof. Geldner[3] supports Dr. Geiger in his view about the antiquity of the Gâthâs. Dr. Geiger's paper has received a reply from Prof. Dillon of the University of Charkow, who agrees with Harlez, Spiegel and Justi in placing the home of the Avesta in the West and the age of the Avesta in times later than those ascribed to it by Geiger.

Dr. Karl F. Geldner's learned paper [5] on the Avesta Literature, which has lately been translated by Rev. Dr. Mackichan,[6] treats, among many other questions, this question of the Home and Age of the Avesta. It presents a very interesting picture of all the points relating to the Avesta.

Journal, B. B. R. A. S., Vol. XXI., pp. 49—65, *1st August* 1901.

"An Untranslated Chapter of the Bundehesh." By Mr. Jivanji Jamshedji Modi.

"With reference to a man's actions in this world and his rewards and punishments in the other, there is in Parsee books, what the Rev. Dr. Cheyne calls in his Bampton Lectures of 1889,[7] 'a very noble allegory.'[8]" This noble allegory is rendered into verse by Rev. Dr. Casartelli under the title of "Outre-Tombe : a Zoroastrian Idyll."[9] According to this allegory, "at the dawn of the third night after death, the soul of a deceased person sees before him a picture of his own deeds and actions in this world. If he is a religious man, he sees a picture of his deeds in the form of a handsome, well-formed, strong

[1] *Vide* "The Age of the Avesta and Zoroaster from the German of Dr. Wilhelm Geiger and Dr. Fr. Von Spiegel." By Dastur Darab Peshotun Sanjana, 1886. [2] *Ibid*, p. 71.

[3] *Vide* Encyclopædia Brittanica, 9th Edition, Vol. XVIII. His article on Persian (Iranian) languages.

[4] *Vide* "The Home and Age of the Avesta," translated from the German of Dr. Emil J. Von Dillon (1887). *Bombay Samachar* Press.

[5] Grundriss der Iranischen Philologie II Band 1 Lieferung. I Awesta Litteratur.

[6] Avesta, Pahlavi, and Ancient Persian Studies in honour of the late Shams-ul-Ulama Dastur Peshotanji Behramji Sanjana, M.A., Ph. D., pp. 1-82.

[7] The Origin and Religious Contents of the Psalter (1891), pp. 398-399.

[8] Journal, B. B. R. A. S., Vol. XXI., p. 49.

[9] Cama Memorial Volume, pp. 74-78 I would here draw the attention of my readers to Dr. Casartelli's another attempt to verify some beautiful ideas of the Avesta. It is the versification of the first Gâthâ of the Avesta (*Dublin Review* of October 1903).

damsel. If he is a sinful man, he sees before him, a picture of his deeds in the form of an ugly, ill-formed, weak woman. The former, *i.e.*, the handsome damsel, speaks words of praise and welcomes the soul and presents itself as his own picture. The latter, *i.e.*, the ugly woman, taunts the soul for not having done his duty while in the world."[1]

In this paper, I present the transliteration and the translation of an hitherto unpublished chapter of the larger manuscript of the Bundehesh, wherein the allegory is described in a rather different and amplified manner. It says, that the deceased person's actions present themselves before his soul after death in the form of a wind and a cow.

This chapter seems to be a later addition. I show in this paper, that the additional chapters found in the larger manuscripts are all later additions. From several facts adduced in the paper, I come to the conclusion, that the latest additions to the Bundehesh were made about 786 A.D.[2]

Journal, B. B. R. A. S., Vol. XXI., pp. 67-245, 19*th December* 1901.

"The Parsees at the Court of Akbar and Dastur Meherji Rana." By Mr. Jivanji Jamshedji Modi.

As said above,[3] this paper of mine is a reply to Mr. R. P. Karkaria with reference to a part of his paper on "Akbar and the Parsees." The main questions were, (*a*) who were the Parsees, who influenced Akbar in the matter of his new religion, and (*b*) who was the leader of the Parsees? I have treated the whole subject under three heads.

I. Firstly, I have tried to prove, that it was the Naôsâri Parsees who influenced Akbar. II. Secondly, I have tried to prove that it was Dastur Meherji Rana, the leader of the Naôsâri Parsees, who influenced Akbar. III. Thirdly, I have examined the objections that have been raised to these facts. In the appendix, I have given the photo-litho facsimiles of some of the documents referred to in the body of the paper, with their texts and translations.

An outline of this paper and of a subsequent supplementary paper on the same subject, based on the Notes of Anquetil Du Perron, has been published in the "Revue de l' Histoire des Religions." The subject of the religion of Akbar has been recently treated in a paper, before the Congress of the History of Religion, held at Baal in August 1904, by Mon. G. B. Maury, whose translation of Comte de Noer's work (L' Empereur Akbar, par le Comte de Noer) I have quoted in my paper.

[1] Journal, B. B. R. A. S., XXI., p. 49.
[2] *Vide* also my Gujarâti Bundehesh, Introduction, pp. 16-20.
[3] *Vide* above p. 275.

Journal, B. B. R. A. S., Vol. XXI., pp. 525-536, 13*th July* 1903.

"References to China in the Ancient Books of the Parsees." By Mr. Jivanji Jamshedji Modi.

This paper was at first read before the International Congress of Oriental Scholars, held at Hanoi in December 1902.[1] In this paper, I have collected the references to China in the ancient books of the Parsees. I have divided my subject into seven parts.

I. I have described the reference to China in the Avesta (Farvardin Yasht, Yt. XIII., 144) under the name of Sâini, and have examined three facts which lead us to identify Sâini with China.

II. In this connection, I have examined the statement of Prof. Douglas, as to what country constituted Sâini or China, in the ancient literature of different nations. It appears, that the whole country between the Pamirs and the confines of Bactria on the West and the great ocean on the East, was, at times, known by the name of China.

III. I have examined the question of the derivation of the name Sin, Sinæ, Chin or China. The question of the derivation is not settled as yet. On one hand, the settlement of that question is very important to Avesta scholars, as it will settle also the date when the Farvardin Yasht, which refers to China, was written. "On the other hand, a satisfactory settlement of the question of the date of the Farvardin Yasht may lead to a solution of the doubtful question of the derivation of the name of China."[2]

IV. I have examined the references to China in the Pahlavi Bundehesh and the Shâyast là Shâyast. The latter book seems to refer to the religion of China as "a mixed religion, *i.e.*, a religion containing Zoroastrian elements, as well as other foreign elements."[3]

V. "This brings us to the question of the influence of Zoroastrian religion upon China"[4]; and so, I examine in this part, the references to Zoroaster and to the religion of Persia in the Chinese books.

VI. I examine the references to China, in the Pahlavi Epistles of Mànoshcheher, in the Bahman Yasht and in the Jâmâspi. These references tend to show, that the Persians of the times, when these books were written, were in lesser contact with the people of China than before. So, they looked towards that country with an idea of strangeness and isolation.

VII. Lastly, I examine some of the references to China in the Shâh-nâmeh.

[1] *Vide* "Compte Rendue Analytique des séances, Premier Congrès International des Études d' Extrême Orient. Hanoi (1902)" published in 1903, pp. 76-77.

[2] Journal, B. B. R. A. S., Vol. XXI., p. 530. [3] *Ibid*, p. 5 1. [4] *Ibid.*

Journal, B. B. R. A. S., Vol. XXI., pp. 537-548, 13*th July* 1903.

"Notes of Anquetil Du Perron (1755—61), on King Akbar and Dastur Meherji Rana." By Jivanji Jamshedji Modi.

This paper is a supplement to my abovementioned paper,[1] "The Parsees at the Court of Akbar and Dastur Meherji Rana." Miss D. Menant of Paris, who takes a great interest in the History of the Parsees, and whose book "Les Parsis" is well known, while looking into the Manuscript Notes of Anquetil Du Perron, who had visited India from 1755 to 1761 A.D., came across some notes by that traveller and scholar, on the subject of Akbar and Meherji Rânâ. She drew my attention to them, and at my request, kindly sent me a photograph of these Notes, which I have reproduced as an appendix to this paper. These Notes were an important find, bearing out the following six points, that I had tried to prove in my previous paper :—

"1. That Ardeshir, who is spoken of by the Dabistân, written long after Akbar's time, as having come to Akbar's Court, had come to India, long after the religious discussions were closed, and long after Akbar had adopted the visible forms of Zoroastrian worship and Zoroastrian calendar and festivals, and so, he had no hand in influencing Akbar towards these things.

"2. That Ardeshir had specially come for the purpose of the dictionary, known as the Farhang-i-Jehângiri, and not for the purpose of taking part in the religious discussions at the Court, nor for the purpose of explaining to the king, the religion of Zoroaster.

"3. That it was the Naôsari Parsees, who had attended the Court of Akbar to take part in the religious discussions, which took place there in 1576—79.

"4. That Dastur Meherji Rânâ was a leading Parsee of Naôsari, and that, as such, he headed the party from Naôsari.

"5. That he explained the Zoroastrian religion to king Akbar.

"6. That if king Akbar put on *sudreh* and *kusti* (*i.e.*, the sacred shirt and thread), as referred to in some of the songs, which spoke of Dastur Meherji Rânâ's visit to the Court of Akbar, there is nothing to be wondered at, especially as he had put on the sacred symbols of other religions, such as Hinduism and Christianity."[2]

Journal, B. B. R. A. S., Vol. XXI., pp. 552-611, 22*nd September* 1903.

"On the Cyropædia." By Mr. R. K. Dadachanjee.

From the time of Cicero, down to the time of the latest writers of the Encyclopædia, several authors have said that Xenophon had written his Cyropædia, "not in conformity with the truth of history, but to exhibit a representation of an excellent government," and so this

[1] *Vide* above, p. 283.

[2] Journal, B. B. R. A. S., Vol. XXI., p. 539.

work was "a political romance" written for a "distinct moral purpose to which literal truth is sacrificed."[1] "But it has been generally believed that there is an admixture[2] of historical truth and fiction in the Cyropædia."[2] The author of the paper under review is of the former view, and thinks "that the Cyropædia has been cast in a mould similar to that of our modern romance."[3]

Our author has divided his subject into several parts.

I. The object of Xenophon in writing the Cyropædia was to accomplish two tasks—"the first, of completing the vindication of the teachings and character of his great teacher (Socrates); and the second, of applying the remedies prescribed by the great reformer for reforming the Athenians, and renewing their lost virtue and glory."[4] To accomplish this task, he takes as the hero of his work, Cyrus, whose exploits as a great conqueror were known to the Greeks, through Herodotus, and through oral tradition, and tries to clothe him with the virtues and qualifications, which, as taught by Socrates, must be possessed by the Athenians, if they thought of rising from their degenerate condition. He tries to point out Cyrus to the Athenians, and to say, "Observe, how Cyrus and the Persians became so great, what qualities and institutions they possessed. Do you have the same qualities and institutions; and you will, also, be as great as the Persians under Cyrus."[5]

II. Our author then gives nine instances, wherein, he thinks, it is Socrates who thinks, and speaks and acts, through the supposed personality of Cyrus.

III. Our author then produces five instances as showing that the Cyropædia sought "to teach the Athenians how to cure their moral and military and educational defects by applying the remedies prescribed by Socrates,"[6] though represented to have been prescribed by Cyrus.

IV. Lastly, our author presents four considerations to show "that the Cyropædia has been cast in a mould similar to that of our modern romance."[7]

However imaginary the work of Xenophon may be, it seems, that there was a substratum of truth under the picture, which presented the Irânian picture of what a good, virtuous and useful citizen must be. There is very little in Xenophon's picture of Cyrus, to show, that it was non-Irânian or against the teachings of the religion or of the moral code of the Irânians. It is true, that Cyrus is made to refer to Greek gods, but that must not lead one to think, that the picture had no Irânian ground whatever. Herodotus, whose account of the

[1] Journal, B. B. R. A. S., Vol. XXI., p. 552. [2] *Ibid.* [3] *Ibid* p. 560.
Ibid, p. 553. [5] *Ibid*, pp. 553-554. [6] *Ibid*, p. 559. [7] *Ibid*, p. 560.

Persians is not thought to be imaginary, gives the names of Greek gods like Jupiter, but that is merely to make his Greek readers clearly understand his writings and views. I think, that the Cycropædia is not a fiction pure and simple, but a mixture of facts and fiction—facts, based on some points of Irânian social and moral life, and fiction, in the attempt to apply it to the exigencies of Greek life.

Xenophon's Cycropædia reminds me of a modern attempt of this kind, though not of the same type. It is the work of a German Professor entitled "So sprache Zarathushtra," which is translated into English under the name of "Thus spake Zarathushtra." Though one cannot point to chapter and verse in the writings of Zoroaster for every idea and word that the writer has put into the mouth of Zoroaster, and though some ideas and words may not look to be Zoroastrian pure and simple, still the substratum is, to a great extent, Zoroastrian.

II.

I will now speak of those papers in our Journal which are not strictly on Parsee subjects, but which indirectly refer to points interesting from a Parsee point of view, and which incidentally throw some light on Parsee subjects.

Transactions, L. S. B., I., pp. 281-312. 30*th November* 1813.

Remarks on the Province of Kathiawar; its Inhabitants, their Manners and Customs. By Lieut. James Macmurdo.

An account of Kathiâwâr, from an antiquarian point of view, may interest a Parsee, because this province seems to have come into some contact with the Ancient Persians, and because the Parsees, on their emigration from Persia, had landed, at first, on its shores before coming to Gujarât. This paper does not contain anything interesting from the latter point of view. But there is one statement which requires a little attention. The author says: "The Rajas of Noanuggur have the title of Jam, which they derive from their Sindian ancestors."[1] He then adds in a foot-note, that "there are several derivations of this title given by historians; Mahomedans who possess it, derive it from Jumshede, and Hindoos from the word *jum*, "fixed" or "firm."

Now, we learn from Ebn Haukal, who lived in the 10th century, that as late as his time, a part of Sind was owned by Parsees.[2] So, it is possible, that the Mahomedan rulers of this district, who may have descended from the rulers of Sind, may have received this title of Jam from there. One need not derive it, as the author says, from "Jumshede" or "Jamshed" because Jam itself is the original

[1] Transactions, L. S. B., I., p. 283.

[2] Ousley's Oriental Geography of Ebn Haukal (1800), p. 146. *Vide* my paper on "The Country of Mekran: Its past History" in the *East and West* of May 1894.

name, the latter part *shede* or *shed* being an honorific word added at the end, as in the case of Khur and Khurshid. The word originally is Yima in the Avesta, and is the same as Yama of the Vedas. Mahomedan rulers of India have often been taking pride in the name of Jamshed, and comparing their rule, pomp and dignity with those of this Pishdâdian monarch of Persia. Last Christmas, I remember having read an inscription on a slab in the fortress of Golconda, near Hyderabad, wherein a potentate is compared with Jamshed.

Transactions, L. S. B., I., pp. 150-56. 30*th March* 1812.

"Account of the Hill-fort of Chapaneer, Gujrat. By Capt. William Miles."

There is one event in the history of the fort of Chapaneer which is interesting and important to a Parsee, because it is, as it were, a landmark in the history of the Parsees in India. This event is the conquest of Chapaneer by the Mahomedans for the first time. It is thus referred to by Capt. Miles in his paper.

"The history of Chapaneer before the introduction of the Mahomedan religion into Hindustan is, like almost all Hindu history and tradition, very fabulous, and, although curious and perhaps, entertaining, is not deserving serious mention. All that can be clearly ascertained is that it exceeded greatly its present size, and was the seat of a powerful Rajpootre tribe, the last raja of which was Putty Rawall. Some descendants from his family are said still to be in existence in Guzerat. This man, however extensive his possessions before might have been, was reduced to his capital by Mahmoud, the seventh king of Western Guzerat, who besieged him in it (say both Hindus and Moslems) twelve years; partially I judge . . . . The tradition is, that Mahmoud's armies took this and Joonaghudd, another hill-fort in Kattywar, on the same day; and that, therefore, he is called by the Guzerattees Mahmoud Be-Ghudde or Be-Ghurree, *i.e.*, of the two forts"[1]

Now, this event of the conquest of Chapaneer by Sultan Mahmud and the introduction of Mahomedanism into it, is thus alluded to in the Kisseh-i-Sanjan, a Persian treatise in verse, giving a short history of the Parsees in India.

چوشد در هند پا نصد سال انجام وزان پس در چنپانیر آمد اسلام
همي شاهي پدید آمد ابا بخت در آنشهرا و نشسته بر سر تخت
همش محمود سلطان خواند ندي رعایا ظلّه سبحان خواند ندي [2]

Translation—"Islam came to Châmpânir at the end of 500 years (since its introduction) in India. Lo! A king with good fortune

[1] Transactions, L. S. B., I., pp. 152-53.

[2] Darab Hormuzdyâr's Revayet, which is being lithographed by Mr. Manockjee Rustomjee Unwalla, Vol. II., p. 349.

appeared and he sat on the throne in that city (*i.e.* Châmpânir). They called him Mahmud Sultan. His subjects called him the Shadow of God."[1]

The Kisseh-i-Sanjan speaks of the king simply as Sultan Mahmud. Now, who was this Sultan Mahmud? Dr. Wilson[2] says, it was Mahmud Bigarâ who reigned in Guzerat from 1459 to 1513. But the writer of the *Bombay Gazetteer* says, it was Mohammed Shah or Ala-ud-din Khilji, the King of Delhi, who reigned from 1295 to 1315. Now the reference to the conquest of Châmpânir by Sultan Mahmud and to the introduction of Mahomedanism into it, in the Kisseh-i-Sanjan, and the fact stated in the history of Châmpânir, that it was Sultan Mahmud Begarâ who conquered it and introduced Mahomedanism into it, determine, that the Sultan Mahmud referred to in the Persian Kisseh-i-Sanjan is Sultan Mahmud Begarâ and not Mahmud Shah or Alâ-ud-din Khilji.

Now this event, which is connected with a defeat of the Parsees at Sanjan, and its date are very important in the history of the Indian Parsees, as they determine the dates of many previous and subsequent events in their history.[3]

Transactions, L. S. B., II., pp. 256-286. *29th September* 1818.

Notice respecting the Religion introduced into India by the Emperor Akbar. By Capt. Vans Kennedy.

This paper is interesting, not only from a Parsee point of view, but from the point of view of every religion. The remarks of the author in the beginning, about the authorship of the Dabistân, which refers to the religion of Akbar, are important, as they show, that Sir William Jones was wrong in attributing the authorship to Mohsan Fâni. In his sixth anniversary discourse before the Bengal Asiatic Society, Sir W. Jones said: "The rare and interesting tract on twelve different religions, entitled the Dabistân, and composed by a Mohammedan traveller, a native of Cashmîr, named Mohsan, but distinguished by the assumed surname of Fâni or Perishable, begins with a wonderfully curious chapter on the religion of Hushang."[4]

Capt. Kennedy was the first to show in his preliminary remarks, in this paper, that Sir W. Jones was wrong in attributing the authorship to Mohsan Fâni. He was followed by William Erskine who showed it on the authority of "the Gul-i-Rana or Charming Rose of Lachmi Narrayen who

[1] *Vide* my article on "A Few Events in the Early History of the Parsis and their Dates" in the Zarthoshti, Vol. I, No. 4. *Vide* Eastwick's Translation, Journal, B. B. R. A. S., I.,p. 183.

[2] Journal, B. B. R. A. S., I., p. 182 note.

[3] *Vide* my article entitled "A Few Events and their Dates in the Early History of the Parsees after their Emigration to India", in the *East and West*, Vol. II., No. 21, pp. 789-800.

[4] Asiatic Researche-

flourished in Hydrabad".[1] He says, that he saw Sir W. Jones' mistake independently, and before he "had an opportunity of seeing Capt. Vans Kennedy's learned and conclusive observations on the same subject."[2] The fact is, that, as Troyer[3] says, the name Mohsan Fani is found in more than one copy of the Dabistan, after the usual address to God in the beginning, in a passage beginning with the words "Mohsan Fani says." Dastur Mulla Feroze thought, that, that is the name of a writer, with a quotation from whom the author began his work. So, this writer, quoted as an authority, by the author, has been mistaken for the author himself. Troyer,[4] about 25 years after the discussion, thought, that the question was still undecided, but we think, that Mulla Feroze's explanation, approved of by Erskine, seems to be correct.

The second point in this paper, which would draw our attention from a Parsee point of view, is the Zoroastrian element in the new religion of Akbar. The question has been dealt with at some length by me before this Society in my paper,[5] "The Parsees at the Court of Akbar and Dastur Meherji Rana." The question of the Religion of Akbar has been treated by Blochmann, Comte de Noer, Wilson, Rehatsek, and Max Müller.

Transactions, L. S. B., II., pp. 297-311. 30*th March* 1819.

Some Account of Mahummud Mehdi, the Wali or Saint of the Mehdives. Translated and abridged from the Books of his Disciples and Followers. By W. Miles.

This paper like that of Captain Kennedy on "The Religion of Akbar" is interesting for all, from the point of view of all religions. The author says: "It is generally known that the Mussulmans expect the appearance of the Imam Mehdi on earth before the last judgment. The question whether he has or has not yet appeared, forms the great distinction between these and other Muhammadans."[6]

Now, the belief of a coming Messiah or Saviour, or, as the Zoroastrians say, a Soshyôs, has been, at one time or another, common in almost all religions. Some say, that the predicted man has already come, and others say, that he is still to come. It is said in the Zoroastrian books, that one Soshyôs will appear in the world before the final day of resurrection. The three Magi,[7] who are said to have gone from Persia to pay homage to the new-born child Christ, seem to have gone to him, believing that he was the predicted Soshyôs. In coming to that conclusion, they seem to have forgotten that the place spoken

[1] Transactions, L. S. B., II., pp. 395-398. [2] *Ibid*, p. 398.
[3] The Dabistan, translated by Shea and Troyer (1843), Vol. I., Introduction XI.
[4] *Ibid*, XII. [5] Journal, B. B. R. A. S., Vol. XXI., No. LVIII., pp. 69-245.
[6] Transactions, L. S. B., II. p. 297. [7] *Vide* Rev. Dr. Casartelli's "The Three Magi."

of in the Avesta as the place of his appearance was not the place where Christ was born.[1]

Now, the belief about a coming Saviour, which is prevalent among the Jews, the Christians, and the Mahomedans, has taken, according to Darmesteter, its definite form, under the influence of Persian mythology. For an excellent treatment of the subject, I would refer my readers to this talented French scholar's lecture on the subject, entitled "Le Mahdi, depuis les origines de l' Islam jusqu'a nos jours" (1885). The author of this interesting brochure says, that Mahomedanism has taken its elements from the three great religions that were prevalent in Arabia, besides its old paganism, at the time of its birth, *viz.*, Judaism, Christianity and Zoroastrianism.[2] Prof. Darmesteter gives a short description of the different Mahdis, who had at one time or another appeared in Persia, Barbary, Turkey, Egypt and India. The word Mahdi, according to Prof. Darmesteter, means "one who is guided."

It was during the Caliphate of Abd-ul Malik, the 9th Caliph (the 5th Caliph of the Ommayids), that Mokhtar put forth Mahommed, the son of Ali (the 4th Caliph), as Al-Mahdi. He was, as it were, the first Mahdi. On the death of this Mahommed, it was thought that he was not dead, but was hid in the valley of Mount Radeva, somewhere near Medinâ.[3] The real Mahdi, according to the Shi'ites, was the twelfth Imâm, Mohammad Ab'l Kassim, who disappeared mysteriously in 879 A.D.

Of the different Mahdis, there was one, Obaid-allah, who was the first Caliph of the Tobinita dynasty in North Africa (909—934 A.D.). Another was Mohammad ibn Abdallah ibn Tumrut, the founder of the Almohades (Almvahedun, *i.e.*, Unitarian) dynasty that flourished in Africa. His followers saluted him as the Al-Mehedi on the 28th November 1121.

[1] What happened then, in the case of the three Magi, seems to happen even now, and that in Bombay. About 5 years ago, a number of Zoroastrians of Persia (Irânis) in Bombay complained, that some of their compatriots in Bombay follow the religion of Bâb and are adopting Babiism. Those who hold the belief came and saw me and explained their belief. I studied the life and the teachings of Bâb. I learnt from these, and from the conversation I had with the so-called Zoroastrian Babis, that Bâb* who appeared in Persia in the middle of the last century (born in 1824 A.D.) was taken by some of these simple folks to be the Soshyôs predicted in the Avesta, and by others to be the Behram Verjâvand alluded to in some of the later Pahlavi and Persian books (Bahman Yasht III., 14, 39, 49, S. B. E., Vol. V., West., pp. 221, 229, 232. Mâdigân-i-Mâh-i-Farvardin Roz Khordâd in the Cama Memorial Volume, by Dastur Kaikhoshroo, p. 127).

[2] As the latest attempt to show Zoroastrian elements in Mahomedanism, I would refer my readers to "Zoroastrian Elements in Mahomedan Eschatology," by Louis H. Gray (1902).

[3] "Le Mahdi" par Darmesteter, p. 35.

* For my paper on Bâb, *vide* the ગુજરાત પંચ of Bombay of April and May 1903.

Three such Mahdis have appeared in our times. One was Sheik Mohammed (Mahammed Ahmed) of Dongola in the Egyptian Soudan. The second was the Sheik el Senusi in Tripoli. A third appeared in the country of Aidin. It is the first of these, who has given a good deal of trouble to the Egyptian Government, and whose name will always be remembered with that of Lord Kitchener.

The Mahdi referred to by Mr. Miles in this paper was an Indian Mahdi, Mahummud by name, who was born at Joonpore, near Benares, in 1442 A.D. (847 Hijri). He found an adherent in Sultan Mahmud I. of Gujarât. He died in Fruruh, a city of Khorasan, in 910 Hijri. According to Blochmann,[1] he died in 911 Hijri (1505 A.D.) at Farâh in Balochistan. There was another Indian Mahdi, Shaikh 'Alâî by name, who appeared near Âgrâ in about 1549 A.D. (956 Hijri).[2] It were these Indian Mahdis, especially Shaikh Alâî, who had given rise to the Mahdi sect and belief, that exerted, according to Blochmann, a great influence upon the mind of Abu Fazl and his brother Faizi, and through them, upon the mind of their royal master, Akbar. Thus the Mahdi belief had played some part in moulding the thoughts of Akbar in connection with his new Ilâhi Din.[3]

One of the Indian Mahdis was Ubdul Rehman, who appeared in the Bombay Presidency in 1810. He appeared in the town of Boodhàn, near Surat. A Parsee Government officer, Mr. Dhunjeeshah Behramund Khan, a vakil of the Rajah of Mandvie, was killed on 19th January 1810, while arresting him.[4]

Transactions, III., pp. 281—341. *28th March* 1820.

An Account of the Caves of Ellora. By Capt. W. H. Sykes.

There is one point in this paper, which would arrest our attention from a Parsee point of view. While speaking of the Ling and Yoni the author says: "The worship of the Phallus in Egypt, and of Mylitta in Babylon, as mentioned by Herodotus, seems to correspond with the Ling and Yoni *Pooja*, and proves that at an early period the mystic operations of Nature excited the attention and reverence of mankind."[5]

[1] Ain-i-Akbari. Translated by Blochmann. Vol. I., Preface The Life of Abu Fazl, p. v.

[2] *Ibid.*

[3] *Ibid.*, p. vii *et seq.* *Vide* my paper on "King Akbar and his Age" (શાહ અકબર અને તેનો જમાનો) in the Gujarâti *Dnyân Vardhak* (જ્ઞાન વર્ધક) of Bombay (Vol. XXXI., No. 11. November 1903).

[4] The Cities of Gujarashtra: their Topography and History illustrated. By H. G. Briggs (1840). Appendix B., p. v. Khan Bahadur Bomanjee Byramjee Patel's "Parsee Prakâsh," Vol. I., pp. 115-116. Dossabhoy Framjee's History of the Parsees, Vol. II., p. 24.

[5] I had the pleasure of visiting the Caves, in February 1891. I would refer my Gujarâti readers to my lecture on the subject before the Dnyân Prasârak Mandli, on 10th March 1891: *Vide* my Dnyân Prasarak Essays (જ્ઞાન પ્રસારક નિબંધો), pp. 105—120.

[6] Transactions, II., p. 2[illegible].

The passage of Herodotus, referred to above, runs as follows :--" At a later period they (the Persians) began the worship of Urania, which they borrowed from the Arabians and Assyrians. Mylitta is the name by which the Assyrians know this goddess whom the Arabians call Alitta and the Persians Mitra."[1] As Rawlinson[2] points out, " this identification of Herodotus is altogether a mistake. The Persians, like their Vedic brethren, worshipped the sun under the name of Mithra. This was a portion of the religion which they brought from the Indus, and was not adopted from any foreign nation." The Babylonian god Mylitta is a female deity, while Mithra is a male deity. So the identification on its very face is incorrect. I attribute[3] this mistake on the part of Herodotus to the similarity of the functions of the Arabic goddess Alitta referred to in his third book (Ch. VIII) and of the Persian Mithra. He was told, that the Arabs took the name of Alitta, when they entered into sacred pledges ; he was also told, that the Persian angel, Mithra, presided on pledges and promises. So he identified the Arabic Alitta with the Persian Mithra. Now, the Arabic Alitta was identified with Babylonian Mylitta. So, he identified Mylitta with Mithra. The angel, that would correspond to Alitta, who is the same as Greek Urania, is Persian Anâhita, who is a female deity. So, the Iránian deity, which would remind us somewhat of the Ling and the Yoni, would be Anâhita, who is the personification of the fructifying and all-nourishing powers of Nature.

Journal, B. B. R. A. S., Vol. I., pp. 127—28.

"A Circular of the Royal Society of Northern Antiquaries."

This is a Circular of the Royal Society of Northern Antiquaries, asking for co-operation from learned societies of different countries. One statement in the Circular arrests our attention from a Zoroastrian point of view. It says : " The Old Northern tongue is preserved in its purity in the ancient poetry of the Eddas, in which is also preserved the Old Northern mythology, which has long been supposed and partly ascertained to have much in common with that of India and Persia, and wherein Buddhism also seems to have left its traces."[4]

Among the Persian elements which seem to have their traces in the Snorra or the Younger Edda, the most important is the reference to Zoroaster. Professor Jackson, in his " Zoroaster, the Prophet of Ancient Irán," quotes the reference at full length, and gives his own translation of it. According to that reference, the Edda, while " giving a brief

[1] Herodotus, Bk. I., 131. [2] Rawlinson's Herodotus, Vol. I. (1858), p. 271, n. 6.

[3] *Vide* my book " કદીમ ઈરાનીઓ—હીરોડોટસ અને સ્ટ્રેબો મુજબ " (The Ancient Irânians according to Herodotus and Strabo), pp. 16—18.

[4] Journal, B. B. R. A. S., I., p. 128.

sketch of the history of the world down to the time of Noah and the Flood, proceeds to an account of the Tower of Babel. . . . Foremost among the builders of the Tower was Zoroaster "[1] who is said to have become King of the Assyrians. "In consequence of the confusion of tongues, he was known by many names, but chief among those was Baal or Bel."[2] The Edda says: "He (Zoroaster) laughed before he cried when he came into the world."[3] This extraordinary thing is also referred to by Pliny, who says:[4] "We find it stated that Zoroaster was the only human being who ever laughed on the same day on which he was born. We hear, too, that his brain pulsated so strongly that it repelled the hand when laid upon it, a presage of his future wisdom."[5]

Professor Jackson refers to this subject in his account of the early life of Zoroaster[6] in his above book. Solinus[7] also refers to this subject. He says: "And so we know that one man laughed at the very hour in which he was born, namely, Zoroaster, afterwards most highly skilled in the best arts."[8]

Journal, B. B. R. A. S., II., p. 214—217 (*January* 1845).

Literary and Scientific Notices. "M. Botta's Discoveries in the Ruins of Nineveh."

There is one statement in this extract which draws our attention from a Parsee point of view. It says: "In another place they discovered great rows of earthen vases of a remarkable size, placed on a brick floor and filled with human bones, and similar to those which have been found at Babylon, Ahwaz, and other places in South Persia."[9] These vases are the Astôdâns or Ossuaries, the like of which were sent to our Society in 1813, and to the Anthropological Society in 1888, and to which I have referred in my remarks on Mr. Erskine's paper, entitled "Observations on two sepulchral urns found at Bushire in Persia."[10]

Of M. Botta's discovery in the ruins of Nineveh, it was then said that "it is one of the most valuable which has been made, for many years, in the field of archæology,—supplying an important link, hitherto wanting, and believed to be irrecoverable, in the history of the Arts amongst the earliest civilizations of the world. . . . The Greek

[1] Jackson's "Zoroaster, the Prophet of Ancient Irân," Appendix, p. 286. [2] *Ibid.* [3] *Ibid.*

[4] Natural History, VII., Chap. 15. Bostock and Riley's Translation (1855). Vol. II., p. 155.

[5] As the Edda contains references to old Persian, Brahminic and Buddhistic subjects, I remember, that when the 8th Oriental Congress met at Stockholm in September 1889, a performance and recital of the Eddas formed a part of the Programme.

[6] Zoroaster, the Prophet of Ancient Irân, p. 27.

[7] As quoted by Spiegel in his Erânische Alterthumskunde, Vol. I., Bk. II., Chap. II., and translated by Dastur Darab Peshotan Sanjana. *Vide* his "The Age of the Avesta and Zoroaster from the German of Geiger and Spiegel" (1886), p. 76, n. 1.

[8] *Ibid*, p. 108. [9] Journal, B. B. R. A. S., II., p. 214.

[10] Transactions, L. S., B. I., pp. 206-213. *Vide* above, pp. 167—68.

historians and the books of the Old Testament furnish the very vaguest hints as to the condition of Art among the Medes, Assyrians, and Babylonians; and hitherto no monuments were known to exist by which they were more fully represented. Unlike the cities of Ancient Egypt, which have transmitted to our times, almost in their integrity, the Arts of their builders, the great cities of Central Asia—Susa, Ecbatana, Babylon, Nineveh—have perished from the face of the earth, leaving, in the language of ancient prophecy, scarcely one stone upon another. Dreary mounds of rubbish, traversed by deep and narrow ravines that indicate the lines of the streets, alone mark the sites of these mighty cities. Nineveh, the city of fifteen hundred towers, whose walls were a hundred feet in height, and had space on their summits for three chariots abreast, seemed more utterly ruined than even Babylon; yet from beneath its dust has the long buried Art of the Assyrians been recovered, and an impulse been communicated which may end in bringing, through future excavations, our knowledge of the former to something of a level with our understanding of Egyptian Art." [1]

The expectations expressed in the early notices of M. Botta's discovery have been greatly fulfilled. M. Botta has, with his co-adjutor, Flandin, published, in 1849, the results of his discoveries under five large handsomely executed volumes, entitled "Monument de Ninive." The first two volumes contain "Architecture and Sculpture;" the second two, the "Inscriptions;" and the fifth, the text, in which M. Botta gives a description of his way of working and of the different ruins and of the character of the inscriptions.

The discoveries of M. Botta were soon followed by those of Sir H. Layard, who, as M. Botta says, was attracted to the place by his discoveries, and whom he calls a "fortunate rival." [2] Layard has described his discoveries in his "Nineveh and its Remains."

We find another extract of a notice of Botta's discoveries in the same volume of our Journal (II, pp. 325—330). Therein, the writer expresses the difficulty "to know, to which of the three great dynasties, which successively ruled the empire of the Assyrians, they (the ruins) ought to be ascribed, *viz.*, the first race of kings, of which Sardanapalus was the last, B.C. 820; the second race, which became extinct at the destruction of Nineveh by Cyaxares (608); or the Medo-Persian conquerors, who governed the east till the time of their defeat by Alexander." [3] The writer thinks that "the second Assyrian era was the date of the construction of the edifice." [4] Later researches have shown that the ruins

[1] Journal, B. B. R. A. S., II., pp. 215-216.
[2] Monument de Ninive, Tome V, Preface, p. x.
[3] Journal, B. B. R. A. S., II., p. 327. [4] *Ibid.*

principally belonged to the first race of kings and that the principal palace was the work of Assur-nasir-pal (885—860 B.C.).

The writer then describes some of the sculptures, and says : "These divinities, so completely opposed to the spirit of the Magian religion, prove then that the doctrine of Zoroaster had not yet been introduced among the Assyrian people."[1]

There is only one Pahlavi book that refers to Nineveh. It is the Shatrôiha-i-Airân. It says : "Ninav of Yurâs founded the city of Ninav." The Yurâs, referred to here, is Yunas or Jonas of the Scriptures. We read in the Scriptures : "Now the word of the Lord came unto Jonah, the son of Amittai, saying, Arise, go to Nineveh"(Jonah I., 1 and 2). This is referred to in the Pahlavi book. Maçoudi also refers to this. He says: "C' est à cette cité que Dieu envoya autrefois Jonas, fils de Mati."[3] The Mati of Maçoudi is the Amattai of the Scriptures.[4]

Journal, B. B. R. A. S., Vol. III., pp. 50—53.

"Remarks on the Origin and Languages of the Aborigines of the Nilgiris, suggested by the papers of Captain Congreve and the Rev. W. Taylor on the supposed Celto-Scythic Antiquities in the South of India" (published in the Madras Journal of Literature and Science, Nos. 32 and 33, of 1847). By the Rev. B. Schmid, D.D. Communicated by the Rev. Dr. Wilson.

This paper must be read together with the following five papers and notes on the same subject, in the Journals of our Society :—

(1) "A collection of words from the language of the Todas, the Chief Tribe on the Nilgiri Hills." Communicated to the Society by the Rev. Dr. Stevenson. (Journal, B. B. R. A. S., Vol. I., Art. III., pp. 155—167.)

(2) "Ancient remains at the Village of Jiwarji, near Farozabad, on the Bhima." By Capt. Meadows Taylor. (Journal, B. B. R. A. S., Vol. III., No. XIV., pp. 179—196.)

(3) "A letter by Capt. Meadows Taylor to Mr. C. J. Erskine, on Druidical or Scythic-Druidical Remains in the Shorapoor District." (Journal, B. B. R. A. S., Vol. IV., January 1852, pp. 144—146.)

(4) "Notices of Cromlechs, Cairns, and other Ancient Scytho-Druidical Remains in the Principality of Sorapûr." By Capt. Meadows Taylor. (Journal, B. B. R. A. S., Vol. IV., January 1853, pp. 380—429.)

(5) A letter on "Scythian tombs near Gulburgah." By Mr. R. M. Brereton. (Journal, B. B. R. A. S., Vol. VIII. Abstracts of Proceedings, pp. cliii-v.)

[1] *Ibid*, p. 329. [2] *Vide* my Aiyâdgâr-i-Zarirân, Shatrôihâ-i-Airân, &c., p. 115.

[3] Maçoudi traduit par B. de Maynard II., p. 93.

[4] *Vide* my paper, "The Etymology of a few Towns of Central and Western Asia, as given by Eastern Writers," read before the Society on 24th March 1899. Journal, B. B. R. A. S., Vol. XX, p. 226. *Vide* my "Asiatic Papers," p. 193.

Though these papers have nothing very special from a Parsee point of view, yet, they are interesting in this, that they treat, directly and indirectly, of the question of the immigration into India of the Scythians who had come into contact with the early Iranians. The Parthians were, by some, considered to be Scythians. Now the question, as to who these Scythians were, has not very definitely been settled. As George Rawlinson[1] said, "a large number, of the best scholars of Germany (and) among them the great historian Niebuhr," and English historians like Grote and Thirlwall, have maintained, that the Scythians were a Tartar or Mongolian race. Rawlinson, on the authority of the test of language, decides against the Mongol theory, and pronounces in favour of the Indo-European origin, but does not decide "to which of the great divisions of the Indo-Germanic race" they belonged. Some say, that they were "Aryans and nearly akin to the settled Irânians."[2]

Now some antiquarians like Capt. Congreve and Capt. Meadows Taylor thought, that these Todas or Todavers "are exclusively the remains of Celto-Scythians immigrated into India and settled on 'the Hills' at very early times,"[3] whose faith was that of the Ancient Druids who worshipped sun and fire.[4] They came to this conclusion from the fact, that cromlechs or stone Moles and kistavens or closed cromlechs are found among the villages of these Todas, as among the ruins of Ancient Druid villages in Great Britain and elsewhere. On the other hand, Rev. Dr. Schmid and Rev. Dr. Taylor say, that these Todas are, like the Tamulians, Maleialies, Canarese and Telingas, the descendants of a "Caucasian or Himalaya race," which "must have immigrated into the plains of India very early,"[5] and which was afterwards "pushed forward to the furthest South by other mountain tribes speaking Sanscrit."[6] Those who hold this opinion, affirm, that the cromlechs and such other remains found at Ootacamund are not special to the Toda villages, but are found in the plains in the various parts of the country. Their chief ground for this opinion is philological, and they show, that the language of the Todas is a dialect of the stock to which the Tamil and the Canarese belong. As I have said in my paper, entitled "A few notes on the Todâs of the Nilgiris,"[7] read before the Anthropological Society of Bombay on 24th February 1904, some of their customs are such as would tempt a Parsee to call

[1] Rawlinson's Herodotus, Vol. III. (1859), p. 192. Essay on the "Ethnography of the European Scyths." [2] Prof. Gutschmid Encycl. Brit., Vol. XXI., p. 576.

[3] Journal, B. B. R. A. S., Vol. III, p. 51.

[4] *Vide* for these people, also, Capt. J. Ouchterlony's "Geographical and Statistical Memoir of a Survey of the Neilgherry Mountains" (1847). Madras Journal of Literature and Science, Vol. XV. (of 1848), p. 51. *Vide* also Dr. Shortt's "Account of the Tribes of the Neilgherries" (Madras, 1868). [5] Journal, B. B. R. A. S., III., No. XII, p. 53.

[6] *Ibid.* [7] Journal of the Anthropological Society of Bombay, Vol. VIII., No. 1, p. 74.

them their own, but there are others that are repugnant and would keep him away from that temptation.

The note[1] which is added by the Secretary of the Society to Captain Meadows Taylor's paper on the "Ancient Remains at Jiwarji," and which refers to similar cromlechs or graves found on the South-East Coast of Arabia, are taken from the notes of the survey of that coast. These notes are subsequently published as a paper by Dr. H. J. Carter in the journal[2], under the title of "A Geographical description of certain parts of the South-East Coast of Arabia, to which is appended a short essay on the comparative geography of the whole of this coast."[3]

Journal, B. B. R. A. S., Vol. III., No. XII., pp. 58—69.

Notes and Remarks on Dr. Dorn's Chrestomathy of the P shtu or Affghan Language.[4] By Lieut. Burton.

The author of the paper says in the beginning, that "the Affghans, like most of the tribes whose dialects belong to the Indo-Persian class, claim a high antiquity for their language. As Moslems and Orientals, they piously and graphically describe their Prophet as using Pushtû with the same facility as he could talk Arabic or Hebrew, Zend or Syriac."[5] There have been different opinions about the stock of languages to which the Pushtu language belonged. Capt. Raverty said in 1860, that "some Orientalists of the present day have endeavoured to make out that the Pushto language belongs to the Indian or Indû-Teutonic family of tongues, because it contains some Sanskrit words, and because the Urdu or Hindustani dialect bears, as it is affirmed, some resemblance in point of idiom."[6] But, as his own opinion, he said: "I am inclined to conclude—from the great affinity I have shown to exist between the Pushto and the Semitic and Iranian dialects; from the numerous traditions on the subject; from the Levitical customs still prevalent amongst the Afghâns, after the lapse of twenty-five centuries from the Jewish captivity; from their great and decided difference in feature from any other people; from their stubbornness and treachery, even towards each other; from their acuteness in matters of trade and their love of gain; and from the numerous proofs we possess of their having gradually advanced from the West of Asia—that the Afghâns are a remnant of the lost tribes of Israel."[7]

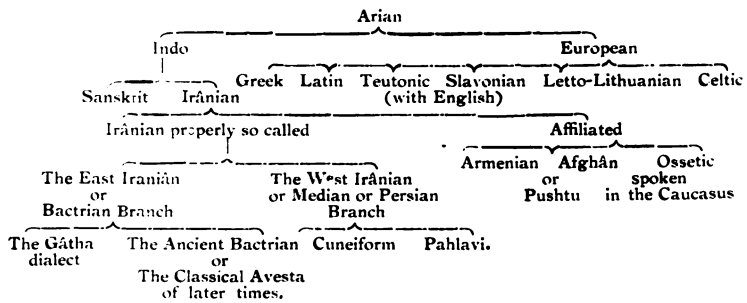
This view has led to the notion, that Pushtu is a Semitic language. This view was held a long time before Captain Raverty wrote this. In the Asiatic Researches,[8] we find a letter from Mr. Henry Van-

[1] Journal, B. B. R. A. S., Vol. III., No. XIV., p. 114. [2] *Ibid.*, pp. 116—137.
[3] *Ibid.*, p. 204, for the note quoted by the Secretary.
[4] A Chrestomathy of the Pushtû or Affghan Language, by Dr. Bernhard Dorn. St. Petersburgh, 1847. [5] Journal, B. B. R. A. S., Vol. III., p. 58.
[6] "A Dictionary of the Pukhto, Pushto or Language of the Afghans," Preface, p. xiv.
[7] *Ibid.*, p. xvi. [8] Vol. II. (1808), pp. 87—95.

sittart to the President of the Bengal Asiatic Society, Sir William Jones, wherewith he gives "the translation of an abridged history of the Afghâns."[1] This history traces "the descent of the Afghans from the Jews."[2] In the note attached to that translation, Sir W. Jones says: "The Pushtu language, of which I have seen a dictionary, has a manifest resemblance to the Chaldaick."[3]

According to Dr. Dorn, whose Chrestomathy is the subject of this paper, it was reserved to his time (1847) "to establish, on incontrovertible evidence, the fact that the Pusthu belongs to the great family of Indo-Persian languages, without bearing the least resemblance to any of the Semitic dialects."[4]

Dr. Haug considered it an Irânian dialect, and placed it in its affiliated group. The following table of the division of Irânian languages[5] presents the position of the Pushtu in the Arian stock :—



The late Prof. James Darmesteter, who had come to India in 1886-87 on a special errand to study Pushtu, and had stayed for several months at Peshâwar and Abbotâbâd, has come to the conclusion, that the Pushtu belonged to the Irânian stock, and that it was, as it were, an offspring of the Ancient Zend.[6] In his triannual report of the work done by the Asiatic Society of Paris for the years 1888—1890, he says: "L'histoire de l' Afghanistan intéresse à la fois l'Inde et la Perse, car il a tour à tour oscillé dans l'orbite de l'une et de l'autre. Sous les successeurs d'Alexandre en particulier, sous les noms d'Arie, Arachosie, Paroponise, el Drangiane, il a été la siège d'un movement de civilisation très intense et très varié : c'est de là que la civilisation grecque a rayonné sur l'Inde ; il a été plus tard la premier centre de l'empire indo-scythe ; quatre civilisations, quatre religions, le Mazdéisme, le

[1] *Ibid*, p. 68. [2] *Ibid*, p. 69. [3] *Ibid*, p. 76.

[4] Dr. Dorn's Chrestomathy of the Pushtû or Affghân language, Preface, p. ii.

[5] Haug's Essays, 2nd ed., pp. 65—67.

[6] Journal Asiatique, Huitième Série, Tome XVI., pp. 19—180. This report is also published in a separate pamphlet form under the title of "Rapport Annuel, fait à la Société Asiatique, dans la Séance, du 26 Juin 1890, par James Darmesteter. Extrait du Journal Asiatique."

Brahamanisme, le Buddhisme et l'Hellenisme, s'y sont rencontrés, s'y sont juxtaposés et semblent y avoir vécu en paix sous la tutelle des rois barbares. . . . . Le phonétisme afghan ne présente aucun des traits essentiels de l'Inde et présente tous ceux qui sont essentiels à la famille iranienne. A l'intérieur de cette famille, il se rattache, non au rameau Perse, mais au rameau zend ; car dans les traits charactérisques où le zend diffère du perse, c'est le zend qu'il suit ; autrement dit, l'afghan est le zend d'Arachosie."[1]

Here, then, Prof. Darmesteter decides, that the Pushtu language not only belongs to the Irânian stock of languages, but is, as it were, the Zend language of Arachosia. There is no wonder, if Dr. Darmesteter has come to the above conclusion, because the modern Afghânistân, where the Pushtu language is spoken, is the country often referred to in the Avesta, as the seat of the Ancient Irânians. The modern names of some of the places in Afghanistan are still the same.[2]

Now, with respect to the belief referred to above, by Capt. Raverty, "that the Afghans are a remnant of the lost tribes of Israel" and that they "gradually advanced from the West of Asia," I would draw the attention of my readers to a recent book, "The Greater Exodus and the Cradle of the Semitic Race," by Mr. Fitzgerald Lee. In it, the author tries to show, that the cradle of the Semitic race is not in Western Asia as it is generally believed, but in America ; that it was from America that the Ancient Israelites migrated to Asia ; and that it was in this migration from America to Western Asia *via* the Behring Straits, that the Afghans were left in their modern country as an offshoot of the Israelites.

On leaving Peshawar for Cabul, we pass by Jamrud, Khyber Pass and Ali Musjid. About these last two places Lieut. Burton[3] says : "*Apropos* of such Arabic names as the Khaiber Pass and Ali Musjid, they remark that the latter was originally a mosque founded by the Great Imâm, after his defeating in a wrestling bout, the daughter of Kâfir, who had sworn to remain a maid until such time as she might meet with a man who could prove himself to be such."[4]

[1] *Ibid.* pp. 83-84. *Vide* pp. 69-70 of the separate report.

[2] I have treated this subject in my Gujarati Lecture on "The Russo-Afghan frontiers, as described in Parsee books" delivered on 1st June 1885. *Vide* my અવસ્તા જમાનાની ઘર-સંસારી જીંદગી, ભુગોળ અને એકરાર નામું. (Avestaic Social Life, Geography and Articles of Faith.) pp. 123—47.

[3] Journal, B. B. R. A. S., Vol. III., p. 58.

[4] A version, a little different from this story, is heard even now by travellers. I heard it when travelling there in 1887. *Vide* my paper before "La Société Asiatique de Paris," entitled "L'Étymologie populaire des noms des étapes entre Pichaver et Kabul." (Journal Asiatique, Huitième Série, Tome, XIV (1889), p. 527. *Vide* my "Asiatic Papers," p. 263. *Vide* the *Jam-i-Jamshed* of 13th June 1887 for an account of my visit to Khyber Pass and Ali Musjid.

Journal, B. B. R. A. S., Vol. III., pp. 126—31.

"Brief Notes on certain Ancient Coins lately presented to or exhibited before the Bombay Branch of the Royal Asiatic Society."[1] By John Wilson, D.D.

These are the notes of Dr. Wilson on a coin[2] exhibited by Dr. Buist before the Society at its meeting of 11th May 1848. Dr. Buist called it a Bactrian coin. Dr. Stevenson considered it to be a Parthian one, and thought that it belonged to Phraates (Phraortes) IV., "the fifteenth of the Arsacidæ,"[3] who was a contemporary of Augustus.

Dr. Wilson agrees with Dr. Stevenson and takes the coin to be Parthian. He says : "The finding of the (Parthian) coin in the Bombay Bàzâr is a curious circumstance ; but it was there probably as a wanderer. "[4] Of the image of the king's face Dr. Stevenson says that "he wears a wig and not his own hair, and from the form of the beard, I should also think it false.[5] Dr. Wilson says on this point : "On both sides of the question of the artificialness or naturalness of the hair of the head or beard in this instance, something could be said, though it is a fact that the Parthian rulers, like the grandees of Assyria, did sometimes wear artificial beards."[6] That the Parthian kings should wear artificial hair, looks strange from a Zoroastrian point of view. The Parthian kings, though a foreign dynasty compared to the preceding Persian dynasties of Persia proper, were Zoroastrian. We know, that there seems to be a doubt among some, as to their being true Zoroastrians. But from the references to them in the classical authors we find that some of them were orthodox Zoroastrians. For example, according to Tacitus, one of them, Tiridates, king of Armenia, hesitated to go to Rome, when called there by Emperor Nero to be crowned the king of Armenia, because he would have had to go by sea, which he thought was against Zoroastrian precepts. The Zoroastrian books enjoin, as referred to also by Herodotus and others, that rivers and other fresh-water reservoirs should not be polluted. Now, this injunction was given from a sanitary point of view, because rivers supplied drinking waters to many. Instead of looking to the spirit of the injunction, Tiridates and others took it in its letter, and said, that going over long distances by sea, when they had necessarily to pollute water, was prohibited. So, he refused to go to Rome. The same is said of his brother Vologeses I, the Vulkhash of the Pahlavi books.[7]

Now, then, if the Parthian kings were Zoroastrians, and some of them orthodox Zoroastrians, it appears strange that they put on artificial or false beards, because the hair, like the nails, once

[1] In the Proceedings of the Society of 11th May 1848, Journal, B. B. R. A. S., Vol. III, No. XII, p. 180, we do not find any mention of this coin.

[2] Journal, B. B. R. A. S., III, No. XII. *Vide* Fig. A, Plate VII., next to p. 130, for the coin. It is the first in the plate. [3] *Ibid*, p. 125.

[4] *Ibid*, p. 128. [5] *Ibid*, p. 126. [6] *Ibid*, p. 128. [7] *Vide* above, pp. 190-91.

removed from the body is considered to be an impure thing, and as such, cannot be put on again. Dr. Wilson says: "It is worthy of notice that the imitations of Grecian art were more successful among the Bactrians and Indo-Grecians, and even Indo-Scythians and Ancient Hindus, than among the later Parthians."[1] So, possibly through faulty art, what appears like false hair may be the representation of a particular mode of trimming the hair.

As to the identification of the coin, Dr. Wilson does not agree with Dr. Stevenson in thinking, that it is the coin of Praortes IV. He thinks, it resembles most the coins of Arsaces I. and Arsaces II., and adds that "the identification of the coins of particular kings of the Parthian dynasty, is not an easy matter, as we find on them merely titles and not names, and our historical fragments do not always enable us to identify these titles."[2]

Journal, B. B. R. A. S., Vol. III., No. XIII., pp. 26—32.

"A Descriptive List of Rock Specimens from Maskat in Arabia, Persia and Babylonia," presented to the Society by Captain T. J. Newbold.

This article may be interesting to students of Geology from a scientific point of view. But it may also interest students from a literary point of view, inasmuch as the author has been, as he himself says, "particular in the examination of these gravel-beds," which he thought were "intimately connected with the most interesting geological phenomena on historical record—namely the Deluge of Scripture."[3] The author thinks that the nearly North and South longitudinal axis of the gravel beds "and the nature of the pebbles show that the course of the flood which deposited them rolled from the northward, from the direction of Mount Ararat, towards the present head of the Persian Gulf, washing fragments from the rocks of the Taurus and Kûrdistân, and grinding their softer materials into the vast, flat, mud deposits which now cover the sea—like plains of Assyria, Babylonia and Chaldæa."[4]

Now, these remarks about the Deluge suggest the question, whether the Deluge is, in any way, alluded to in the Avesta books. Some see in the second chapter of the Vendidâd, where king Jamshed is represented as building a *vara*, *i.e.*, an enclosure or a colony as a protection against the coming winter, an allusion to the Deluge. I do not think it is so. I have, in my essay on King Jamshed, written in 1882 and published in 1884, shown that this chapter does not at all refer to the Deluge.[5] Mr. B. G. Tilak in his recent book[6] refers to this chapter of the Vendidâd, and says, that in it, there is an allusion to the extraordinary cold of the polar regions, where the Ancient Aryans once lived.

[1] *Ibid.* p. 129. [2] *Ibid.* [3] Journal, B. B. R. A. S., III., No. XIII., p. 31. [4] *Ibid.*

[5] Jamshed, Homa and Fire. જમશેદ હોમ અને આતશ, pp. 42—55.

[6] The Arctic Home in the Vedas, pp. 375—79.

Journal, B. B. R. A. S., Vol. III., No. XIII., pp. 36—107.

Memoir on the Cave-Temples and Monasteries, and other Ancient Buddhist, Brahmanical and Jaina remains of Western India. By John Wilson.[1]

This paper may be read together with a second similar paper presented by Dr. Wilson in September 1852. (Journal, B. B. R. A. S., Vol. IV., pp. 340—379.)

Our present Viceroy, Lord Curzon, takes a kind interest in the preservation of the ancient monuments of our country. He has appointed various commissions for different subjects, but has appointed none for this, and has done what ought to be done in this direction without appointing a Commission. But it appears from this paper of Dr. Wilson, that the attention of the Court of Directors was drawn to the question of the preservation of caves, temples, monuments, and other religious memorials about 55 years ago. That honourable body thereupon determined to appoint a Commission of Orientalists to inquire into that matter. "Preparatory to the commencement of the labours of that Commission, and the issuing of instructions for its researches, another of a local character," had "been formed by the Bombay Branch of the Royal Asiatic Society to make such preliminary inquiries about the situation and extent and general character of the antiquities which are to be the subject of investigation as may facilitate its judicious commencement and prosecution."[2] Dr. Wilson had prepared for this Bombay Commission the Notes which formed the subject of this paper.

Now, this paper has nothing special from a Zoroastrian point of view. But there are three sets of caves alluded to in it, which have something to attract the attention of a Parsee. The first are the Kanheri Caves, near Borivli, in the Thana District. Some Parsee visitors had gone there in the years 999 and 1021 A.D. They have inscribed their names and the years of their visits in Pahlavi.

The Pahlavi Inscriptions are given by Mr. K. R. Cama in his જરથોશ્તી અભ્યાસ (Zoroastrian Studies).[3] He has deciphered the first inscription and given its translation.[4] The late Dastur Dr. Jâmâspji Minocherji has also deciphered it.[5] Inscriptions Nos. 4 and 5 have been also deciphered by the late Mr. Muncherji Shâpurji Vâchâ.[6]

Anquetil Du Perron had visited these Caves in 1760 A.D. He refers to them in his Zend Avesta (Tome I, Partie I., pp. 394—413), but he does not seem to have noted the Pahlavi Inscriptions.

The second set of caves that are interesting from a Parsee point of view, are the Âjanta Caves.[7] They contain a drawing of a Persian em-

[1] p. 36, January No. of 1850. [2] Journal, B. B. R. A. S., III., No. XIII., p. 36.
[3] The first three in No. II., p. 98 *a*. The second two in No. III., p. 146 *a*.
[4] *Ibid*, pp. 147—160. [5] *Ibid*, pp. 161—163.
[6] *Ibid*, No. IV., pp. 209—217. [7] Journal, B. B. R. A. S., III., No. XIII., p. 71.

bassy supposed to be that of Behrâm Gour (Behram V.). In my paper before our Society, entitled "The Bas-Relief of Behrâm Gour (Behram V.) at Naksh-i-Rustam and his Marriage with an Indian Princess,"[1] I have referred to these caves, and said, that I think the picture refers to the embassy of Behrâm Gour, of which he himself was an ambassador in disguise.

The third set of caves is that of Bâmiân in Afghânistân, a country over which the Ancient Persians had a sway for a long time. Some hold, that it is an open question whether Buddhism, which spread in all directions, had any influence on the followers of Zoroaster. The late Dr. Darmesteter was one of those who believed that it had some influence. The following remarks of Dr. Wilson on the influence of this religion on Christianity attracts our attention. He says: "It is a remarkable fact that it was by the extension of Buddhism to Bactria and its neighbourhood that the Alexandrian divines, Clemens and Cyril, became acquainted with its existence. Through this line in particular, Buddhism seems to have come in contact with Christianity and encouraged its corruption by the introduction of the monastic institution."[2]

Now the question is, if it was through Bactria, the country ruled by Ancient Irân, that Buddhism had some influence on Christianity in introducing the monastic institution in it, why was it that it had no influence in this matter on Irân itself? The monastic institution and its accompaniments, ascetic life and fasting, have no room in Zoroastrian beliefs and doctrines. Irân had never any Zoroastrian monasteries, though it had Christian ones. It were, according to Firdousi, the monks of one of the Christian monasteries, who found the floating body of Yazdazard, the last King of Irân, in a river and helped to remove it from there. The Desâtir, of which we have spoken above, and which is considered to be a semi-Zoroastrian book by some, refers to fasting as a good institution, but therein, its views are opposed to true Zoroastrianism, and its commendation in favour of fasting shows, that, as Erskine said, its doctrine was a mixture of Zoroastrianism, Buddhism, Sufism and such other beliefs.

James Bird in his paper on "The Bactrian and Mithraic coins[3] refers to these Bamian caves." He thinks, that "The fresco-painting in a niche of the second idol of the caves of Bamian" belong to the times of "Shriman Hersha Vikramaditya of Kashmir History who destroyed the Sakas,"[4] and whom he identifies with Sapur II of Irân.

[1] Journal, B. B. R. A. S., Vol. XIX., No. L., pp. 58—75. *Vide* above, pp. 271-2.
[2] Journal, B. B. R. A. S., Vol. III., No. XIII., p. 78.
Journal, B. B. R. A. S., Vol. I., pp. 203—322. *Vide* above, pp. 100-200. [4] *Ibid*, p. 296.

Journal, B. B. R. A. S., Vol. III., No. XIV., pp. 149—178.

Account of the Great Hindu Monarch, Asoka, chiefly from the Indische Alterthumskunde of Professor Christian Lassen. By the Hon'ble Sir Erskine Perry.

This article draws the attention of a Parsee from the fact that it alludes to Seleucus as a Parsee king. The article is based on the writing of a German scholar, who was famous as well for his Irânian studies as for his Indian studies. Lassen's name is known to Irânian scholars as the editor of the first five chapters of the Vendidâd (1852), and as the author of "Die alt-persischen Keilenschriften von Persepolis" (1836).

As it is well pointed out, Âsoka was to Budhism, what Constantine was to Christianity, and Vishtâsp or Gushtasp to Zoroastrianism. As Sir E. Perry says, the Hindus may be as proud of Âsoka as the Mahomedans of Akbar. Now, in going through this article from a Parsee point of view, we find that Chandragupta (the Sandrocotus of the Greeks), the grandfather of Asoka, ejected from his dominions a king of the Nanda dynasty, and captured his territories. The king of the Nanda dynasty then sought the help of five other Hindu Râjâs and of "the Great King of the Mlechas or Parasikas (Parsis)[1]". This great King of the Parasikas or the Parsees was, as Lassen says, Seleucus, "the then reigning Prince of Persia."[2] Now the question is, why did the native writers call Seleucus a great King of the Parasikas or the Parsees? Was he a Parsee or Zoroastrian? No, he was not. So, perhaps, they called him a Parsee, because he occupied the throne of the Parsees. Or, perhaps, because he came from the western ountry of Persia. In the same way, the later Parsee books called Alexander, a Christian, because, he came from the country of Roum or Asia Minor, whence the Christian emperors of Rome invaded their country. Or, perhaps, they followed some, since lost, much later Persian writings, which, with the false idea of saving the Persians from the ignominy of being considered as defeated and ruled by a foreigner, called Seleucus a Persian or Parsee, just as they called Alexander a Persian or Parsee, saying that he was descended from Dârâ or Darius.

Journal, B. B. R. A. S., Vol. VII., pp. 1—36. 10*th September* 1863.

On the Sah, Gupta and other Ancient Dynasties of Kattiawar and Guzerat. By the Hon'ble Mr. Justice Newton.

It is well known, that the Ancient Persians had, at one time or another, invaded India, and had made their influence felt in the country in various ways. Old historical books, tradition and coins[4] prove this fact. This paper, resting on the authority of the coins of two ancient dynasties,

[1] Journal, B. B. R. A. S., III, No. XIV, p. 154. [2] *Ibid.*

[3] The Sâh dynasty is supposed to have ruled from 70 or 60 B.C. to 235 A.D.

[4] *Vide* my paper, "The Bas-Relief of Beharâm Gour at Naksh-i-Rustam and his Marriage with an Indian Princess." Journal, B. B. R. A. S., Vol. XIX, pp. 58—75. *Vide* my "Asiatic Papers," pp. 67—84.

offers an indirect proof of this fact. The author says: "With the exception of the Punjab and Sind, where the coinages of the Bactrian monarchs are to be met with, there is no part of India where coins are found so artistic in design and execution as those supplied by Guzerat and Kattiawar. The yields of these districts claim a high interest from the circumstance that they are plainly traceable to Greek originals."[1] He lays down the principle that the "changes in the execution of the dies, indicative of a gradual deterioration of numismatic art," determine "the order of the series."[2] Proceeding on this principle, he says that "it is unquestionable that the Sâh coinages are imitations from Greek originals. Prinsep, when first alluding to them, before their decipherment, remarked that 'the very style and beauty of some of the earlier specimens might be enough to convince an artist or sculptor of the fact, for we might in vain seek such accurate delineations of the human features on any genuine Hindoo coin.' We should expect, therefore, to find the highest exhibition of art in the coins of the first princes of the series, while the connection with Parthia or Bactria was yet recent, and a gradual deterioration in those of their successors as the dynasty had become isolated."[3]

Working on this principle, the author examines a number of coins, and among them, some new ones that had come to his hands, and sees in their series an outline of history. He says: "Should the conclusions stated in this paper be correct, we have an outline history of the northern part of this Presidency already sketched out from a date not long subsequent to that of Alexander down to the end of the sixth or seventh century of our era. Passing by Chandra Gupta Maruya, the contemporary of the great Macedonian, and the Bactrian Demetrius, whose invasion of India may be conceded on the testimony of Strabo, we have grounds of admitting the influence, if not the paramount authority in Saurashtra, of Menander, to whom Professor Wilson assigns the date B.C. 126, and whose coins the author of the Periplus states to have been still current in Broach at the end of the first century after Christ. The Sâhs must apparently have risen to power very early in the first century of the Christian era, and the last sovereign of the line appears to have reigned about A.D. 250. Kumâra Gupta and Skanda Gupta immediately succeeded them, and these were followed by the Valabhi dynasty, whose era dating from A.D. 319 is generally admitted. Col. Tod gives A.D. 524 as the date of the sack of Valabhi, and the evidence deducible from the coins of the dynasty may be held to favour the conclusion that their empire continued at least some two centuries. Their downfall was attributed by Col. Tod to an army of Parthians and Scythians, but Mr. Elphinstone has suggested that the invaders may have been Sassanians, probably under Naushirvan: and in this

[1] Journal, B. B. R. A. S., Vol. VII., p. 1. [2] *Ibid.*, p. 20. [3] *Ibid.*, p. 20.

event, we have doubtless an explanation of the occurrence of the "Gadhia" coins already alluded to. Barbarized as these are, the attempt to delineate the bust and fire altar of the Sassanides is evident; and it is certain, therefore, either that the Sassanian monarchy obtained a footing in Guzerat, or, as is more probable, that an offshoot of the dynasty succeeded in establishing an empire there. The time assigned to the fall of Valabhi was one when such an irrruption was probable, and if the number of debased Gadhias, which from time to time come to light, may be looked on as indicative of a rule extending over a century or two, our researches hitherto will bring us down to the commencement or end of the seventh century of our era, and close with a race of Sassanian origin reigning in Kutch, Kattiawar, and Guzerat."[1]

Mr. Newton here tries to show, that the Ancient Persians had, for centuries, a political influence of one kind or another on India from the time of Alexander, either direct or indirect, through Parthia and Bactria. We know, that in the third century B.C., out of the 12 satrapies of Persia, three were Indian. The first extended from the Paroponessus to the Indus, the second from Indus, properly so called to the Hydaspes, and the third on the lower Indus from Pattala. Eucratides, king of Bactria, is supposed to have sent expeditions into Cutch and Gujarât (181—161 B.C.).

Ferishta tries to trace the connection between India and Persia from very remote times, beginning with Peshdâdian Faridun. He says: "Some authors, however, relate that Fureedoon even possessed the Punjab; and that the descendants of Koorshasp (Kershâsp), down to the celebrated Roostom, held it in subjection, together with Kabul, Tibhet, Sind, and Nemrooz.[2]" A Hindu Raja of Punjab, Kesoo Ray by name, who is said to have marched victoriously, at one time as far south as Shewala Dweep (Ceylon) is said to have later on asked the aid of Minocheher, who sent Sâm, the son of Nariman to his aid. Kesoo Ray established his power with this Persian aid.[3] Munere Ray, his son, turned faithless to the Persians and took away the country held by the Persians from the hands of the officers of Zal. So, later on, Kaikobâd sent Rustam to reconquer it. Rustam did so and placed a Hindoo chief Sooruj on the throne. It was in his time that Hindus, who hitherto reverenced the sun like the Persians, became idol-worshipers at the instance of a Brahmin. Later on Kedar Raja paid a tribute to Kâus and Kaikhosru. Ferishta then traces the connection of Persia with India from the time of Ardeshir Babegân to that of Khushro Parviz.

Mr. Newton has continued his researches in this line in his second similar paper, entitled "On Recent Additions to Our Knowledge of the Ancient Dynasties of Western India," read on 9th July 1868.[4]

[1] *Ibid*, pp. 35-36. [2] Brigg's Ferishta I. Introductory Chapter on the Hindoos, p. LXVI.
[3] *Ibid*, p. LXVII. [4] Journal, B. B. R. A. S., Vol. IX., No. XXV., pp. 1—19. *Vide* below, p. 309.

Journal, B. B. R. A. S., Vol. VII., pp. 37—52.

Nasik Cave Inscriptions. (With a plan.) By Messrs. Edward W. West and Arthur A. West.

In this paper there are some references that are interesting from a Parsee point of view.

In describing inscription No. 14 in the Nasik Caves, the authors say: "This inscription is evidently a record of the doings of Ushvadâta, the son-in-law of Nahapâna, the son of King Kshaharâta.[1]

This Nahapâna was a Parthian King. All the three names, mentioned above, seem on their face to be Irânian. Dr. Bhau Daji refers to this king in his paper on Inscriptions at Junagur.[2] He says: "The Parthian King Nahapâna, the exploits of whose son-in-law Ushvadâta are recorded at Nâsika, clearly flourished before Chashtana and Padumâvi. The success with which Ushavadâta conducted his expedition to Malaya or Malabar from the North through the Deccan, shows that the princes of Paithan and of Mahâ-Ândhra could not have been very powerful. I was strongly inclined to look upon Gautamiputra as the founder of the Sâlivâhana era, but the claims of Nahapâna appear to be much more probable."[3]

Thus the cave inscriptions, in addition to coins and old books, show that the Ancient Persians had exerted great power upto Khandeish and even upto further south.

The paper[4] of the Hon'ble Mr. Justice Newton, read, on 9th July 1868, under the title of "Recent Additions to our Knowledge of the Ancient Dynasties of Western India," may be read with advantage in connection with this paper.

Journal, B. B. R. A. S., Vol. VII., Proceedings, p. xvii.

9th January 1862.

The Inlaid Work of Bombay. By Dr. Birdwood.

This paper arrests the mind of a Parsee from an industrial point of view. Dr. Birdwood says that the "Inlaid work" was introduced into Bombay about 60 years ago (*i.e.*, about 102 years ago from this date) from Hyderabad in Sind, where it was introduced from Persia, twenty years previous to its introduction into Bombay. Dr. Birdwood gives a list of the names of the manufacturers in this work in Bombay.[5] The list shows, that out of 51 manufacturers 22 were Parsees. This shows, that the Parsees at that time took up gladly the work, that was imported here from what was once their father-land. At present the number of manufacturers has fallen very low.

[1] Journal, B. B. R. A. S., Vol. VII., p. 49. [2] *Ibid*, pp. 113—131. *Vide* below, p. 309.
[3] *Ibid*, p. 118. [4] Journal, B. B. R. A. S. Vol. IX, No. XXV, pp. 1—19.
[5] Journal, B. B. R. A. S., Vol. VII, Proceedings, p. xix.

Journal, B. B. R. A. S., Vol. IX, No. XXV, pp. 1—19.
9th July 1868.

"On Recent Additions to our Knowledge of the Ancient Dynasties of Western India." By The Hon'ble Mr. Justice Newton.

This paper is, as it were, a continuation of Mr. Justice Newton's paper on "The Sâh, Gupta, and other Ancient Dynasties of Kattiawar and Gujarât,"[1] to which we have referred above. In this paper, the author continues the examination of the subject, that there was once "a line of sovereigns" which connected "the northern portions of this Presidency with Parthia and Bactria and through them with Greece."[2] He speaks especially of the Sâh dynasty, and says that it can be traced "upwards to one of the Greek monarchies."[3]

From a report of the Proceedings of the meeting of the Society of 11th July 1867, we learn, that the President, Mr. Justice Newton, had placed before the Society "some unique specimens of the coins of Svâmi Chashtana (who is mentioned in the rock inscription at Girnâr) and of Nahapânâ (whose name occurs on the cave inscription at Nâsik and elsewhere")[4]. He said, these coins showed "the close connection of both sovereigns and especially the former, with the dynasty of the Sâhs," and pointed out "that although the Sâh series is now traced up to names which one would be inclined to set down with much confidence as Parthian, the type of these highest coins of the series as well as of the later Sâh coinage bears a much less close resemblance to the coinage of the Parthians than to that of the Bactrian Greeks."[5] Mr. Newton then referred to the fact, that in the several cave inscriptions at Nâsik, Karlen, and Junir, Nahapâna was mentioned, and said, that he proposed speaking at some length in the future over the subject of these coins. This paper, then, is the result of his promised further inquiries. "These coins proved," as said by Dr. Wilson at the meeting, "that the Bactrian power had extended to Saurâshtrâ or the peninsula of Gujarat."[6]

At the above monthly meeting of 11th July 1867, the President, Mr. Justice Newton, laid before the Society a number of coins presented by the Chief of Kathiawar. Among the coins so presented there was one from the Thakur of Morvi on which Mr. Justice Newton made the following remarks[7] :—

"Silver coin of the Sassanian type, already alluded to, interesting as approaching nearer to the original coinage of the Sassanidæ than any specimen that has before reached me from Gujarat or Kathiawar.

[1] Journal, B. B. R. A. S., Vol. VII., pp. 1—36. Read 10th September 1863. *Vide* above, pp. 305—307.

[2] Journal. B. B. R. A. S., Vol. IX., p. 1. [3] *Ibid.*

[4] *Ibid*, Abstract of the Society's Proceedings from Dec. 1866 to Nov. 1868, p. xxii.

[5] *Ibid*, XXII.

[6] *Ibid*, p. xxiii. For a further reference to this Nahapâna, *vide* Journal, Vol. XIII., p. 314.

[7] *Ibid*. Proceedings Official, Literary and Scientific, pp. xiv—xv.

Mr. James Prinsep first remarked on the evidence, which some coins of this class offer, of the rule of a dynasty of fire-worshippers in Gujarat, and I may avail myself of the present opportunity to point out by a small series of these coins, the rapid deterioration of this coinage, as the isolation of the branch settled in Kathiawar from the parent stock may be inferred to have become complete. The first in the series is a coin of the Sassanians, beautifully executed and full of detail, and in the coin now received from Kathiawar it will not be difficult, though there is a lamentable falling off, to trace on the obverse the bust of the King, and on the reverse the same fire altar and two priests. In the subsequent specimens all knowledge of the original designs appears to have faded away. First the ear ornaments of the king cease to be recognised, are separated from the bust, and figured as a distinct device; then different parts of the bust and face are gradually isolated or lost; and ultimately an assemblage of lines and dots is arrived at, which, but for the means which we possess of tracing the descent, step by step, it would be impossible to identify as intended to be a representation of the artistic bust and fire altar on the original coin."

Journal, B. B. R. A. S., Vol. X, No. XXX., pp. 316—407.
12th September 1874.

"Notes on the History and Antiquities of the Island of Bassein." By Dr. Gerson Da Cunha.

There is one statement in this paper which arrests the attention of a Parsee. It is a quotation from Goez [1] which states: "The persecution of the Portuguese had made many Hindûs, Mussulmans, and Parsees abandon their homes and live in the dominion of Shah Jehan, where they had liberty of conscience; and that between Bassein and Damaun there are few natives, the greater part of the village lands being uncultivated." [2] Dr. DaCunha then describes at some length, on the authority of a Portuguese writer, the stringent decrees issued throughout Portuguese India affecting the non-Christian population. It shows how shabbily the non-Christians were treated by the Portuguese.

Now, we have the authority of a Parsee book to say, that the Portuguese ill-treated the Parsees in the matter of their religious belief. It is the "Kisseh-i-Zartushtiân-i-Hindustân" by Dastur Shapurjee Sanjana. It says (Naôsâri Meherji Rânâ Library's fair MS., p. 16, ll. 6-10):—

زبعد چند سال آن ملک سنجان | گرو گشتهٔ بدست شهٔ فرنگان
روان گشت بسنجان دور آن شاه | بترسیدند همه دانائی خوشراه
بنوساري نوشت. یکه نامه ایشان | بسی تنگیست برما ای عزیزان
لهذا ما بخواهیم از شمایان | ده بلسار بدهند نیکرایان

[1] "A traveller in India about 1650." *Vide* Calcutta Review (1846). Vol. V., pp. 271-272.
[2] Journal. B. B. R. A. S., Vol. X., pp. 334—336.

Translation.—After several years, that country of Sanjân was pledged to (lit., was deposited as a pledge with) the King of the Portuguese. The rule of that king spread over Sanjân [and] all the wise men of good habits got frightened. They wrote a letter to Naôsâri, saying, "O dear friends ! there is a good deal of difficulty over us. Therefore, we ask from you, that you good-natured persons may give us the town of Bulsâr." [1]

We learn from this passage, that the Parsee priests at Sanjân request their co-professionalists at Naôsâri to allow them to go to Bulsâr to carry on their priestly profession there, as they were oppressed by the Portuguese rule.

I have recently come across some Portuguese documents, which shew, that it was the Portuguese Ecclesiastical Department that had the right of granting the permission for erecting new Towers of Silence, and that it tried to put certain restrictions from a religious point of view when granting the permission.

Khâfi Khân,[2] a well-known historian of the time of Aurungzeb, refers to the tyranny of the Portuguese in religious matters. He says : "If a poor traveller had to pass through their possessions . . . . . he would not be able to say his prayers at his ease." [3]

The *Bombay Gazetteer*[4] says, that the Parsees at Thâna had, at one time, to run away to Kalyân to avoid conversion to Christianity at the hands of the Portuguese.

Journal, B. B. R. A. S., Vol XI., pp. 311–330. 13*th September* 1875.

"The Labours of the Arab Astronomers, and their Instruments, with the description of an Astrolabe in the Mulla Firuz Library." By E. Rehatsek.

"In this paper Mr. Rehatsek described at considerable length the works of the Arabs in astronomy, and described the astrolabe, which was kindly lent for exhibition by Mr. Khursetjee Rustomjee Cama, and the manner of using it for taking observations."[5]

The preliminary remarks of Prof. Rehatsek are specially interesting, as they show, what the different ancient nations—and among them the Ancient Persians—had offered in the advancement of the knowledge of astronomy. Prof. Rehatsek says : "As the ancients have laid the foundations of all the practical and theoretical sciences we now possess, and we have during the lapse of thousands of years become heirs to all the accumulated knowledge which has escaped the ravages of time, and has been preserved to be improved and augmented by future ages, it

[1] *Vide* my article on "A Few Events in the Early History of the Parsis" in the Zarthoshti, Vol. I., No. IV., pp. 285—289. [2] Elliot's History of India, Vol. VII., pp. 344-345.
[3] *Ibid*, p. 344. [4] Vol. XIII., Part I., p. 254.
[5] Journal, B. B. R. A. S., Vol. XI., Abstract of the Society's Proceedings, p. xxxvi.

behoves us to speak of the attainments of the ancients, whether perfec or imperfect, with humility and veneration.

"The mild climate and the clear sky of the East naturally poin to it as the cradle of astronomy, but it would be wrong to assert, as ha been done by some authors, that it originated first of all among th Chaldæans.[1] . . . . It cannot be denied that when the Greeks were i a state of almost complete barbarism, the Chaldæans and Egyptians ha made considerable progress in astronomy, and it is certain that th Greek astronomers of the school of Alexandria had recourse to Chal dæan observations; whilst before their time Thales in the 7th, Plat in the 5th, Eudoxus in the 5th, and Pythagoras in the 2nd Centur before Christ, went from Greece to the Egyptian priests to see instruction. Hence it is clear that the Greeks were not the inventors c astronomy; and although we have mentioned only the Chaldæans an the Egyptians as their teachers, there is the greatest probability that th Chinese, the Hindus and Persians, likewise furnished their quota c astronomical information, but that, on account of the immense dis tance and the want of close intercourse with these nations, the Greek became acquainted with their discoveries only at second-hand."[2]

I think, that the knowledge, which the Greeks derived from th Persians, was, to some extent, direct and not second-hand. Compared t India and China, Persia was nearer Greece. The Greeks came int frequent contact with the Persians in the times of their Achemenia rulers. We have the authority of a Pahlavi book, to say, that th Greeks translated a good deal from the books of one of the two grea Persian libraries. The Dinkard says[3] :—

Dayan vazand i min mar-i-dush gadman Alaksandar val Airan shat dayan khudaiyeh mad zak i val daz i napisht napishtê val suzashnê v zak i pavan Ganj-i-Shaspigân val yadman i Arumayân mad va avas valach yutnaik jiotoâik uzvân vajardê va pavan akâsiâh i min pishinigâ goftê.

Translation.—During the calamity which spread in the country c Irân from the wicked, notorious Alexander during his rule, tha (library) which was in the Daz-i-Napisht was burnt, and that whic was in the Ganj-i-Shaspigan came to the hands of the Arumayân Greeks), and they got it rendered into the Greek language for gettin information about the sayings of the ancients.

From this passage we learn, then, that the Greeks took a good de direct from the Ancient Persians. That a portion of this ancient literatur

[1] Journal, B. B. R. A. S., Vol. XI., p. 311. [2] *Ibid*, p. 313.

[3] An old Zend-Pehlavi Glossary by Dastur Hoshangji and Dr. Haug. Introduction pp. xxxii. and xxxvi-vii. The Dinkard by Dastur Peshotan B. Sanjana. Vol. IX., Pahla Text, p. 450. s. 3. English translation, p. 569.

of the Persians, which the Greeks of Alexander translated into Greek, must have treated of astronomy, is clear from the contents of the Nusks given in the Pahlavi and Persian literature. We learn from the Dinkard [1], that one of the twenty-one *nusks* (books) treated of the constellations. The Revâyats speak of the sixth book, Nâdar, as treating of the science of astronomy (علم نجوم).[2]

As to the time when the Arabs took most of the knowledge of astronomy and other sciences from the Greeks, Rehatsek says :—

"We shall not say anything about the astronomy of the Ancient Arabs, their practical acquaintance with this science having been scarcely more extensive than that possessed by the Greeks before the time of Thales, and they began to make it an object of serious study only during the period of the Abbasside Khalifs. The celebrated Al Mançûr, surnamed Abu Ja'fer, was concerned most in the intellectual revolution which then commenced to manifest itself among the Arabs. He ascended the throne about the middle of the 8th century (A.H. 136, A.D. 754), encouraged the sciences by his liberality, by the favours wherewith he honoured those who cultivated them, but above all by his own example, because he devoted himself with much ardour to the study of astronomy. His successors followed in his footsteps ; the celebrated Harûn Al-Rashid and his son Muhammad Al-Amin favoured with all their might the movement of civilization which had manifested itself among the Arabs. But among all the Arab princes who became celebrated by their love for the sciences, the Khalif Al-Mâmûn-A'bd-Allah, second son of Harûn, who ascended the throne A. H. 198 (A.D. 813-14), is deserving of special mention. He protected the sciences as a sovereign and a philosopher ; for, magnanimous like Alexander, he never forgot, even in his warlike expeditions, the noble purpose he had in view. He imposed on Michael III. a tribute of books, constituting the treasures of the ancient civilization of Greece, and afterwards waged war against Theophilus, who had refused to allow Leo, the Archbishop of Thessalonica to depart to Baghdâd, and whom this Christian prince allowed to live on the price of the lessons which he was obliged to give to slaves. Beginning with the reign of Al Mâmûn, all the sciences, but particularly astronomy, took a prodigious start among the Arabs, and crowds of men remarkable for their works and for their scientific attainments surrounded his throne. . . . The astronomers of Baghdâd made a great many important observations, and drew up new tables of the sun and of the moon more exact than those of Ptolemy." [3]

[1] S. B. E., XXXVII., p. 17. *Vide Ibid*, p. 15 n. 1.

[2] Fragmens relatifs à la Religion de Zoroastre. par Mohl et Olshausen (1829). Persian text, p. 12, l. 21.

[3] Journal, B. B. R. A. S., Vol. XI., pp. 315-316.

Journal, B. B. R. A. S., Vol. XII., pp. 51—162.

"Notes on the History and Antiquities of Chaul." By Dr. J. Gerson Da Cunha.

There is one point in this paper that is interesting to the Parsees from an historical point of view. It is the fact, alluded to on the authority of Zakarîya-al-Kazwini, that, in the 13th Century, Chaul (now called Revdândâ) was inhabited by a number of Parsees. [1]

There are two towns of the name of Chaul. One is that referred to by Dr. Da Cunha, and the other is near Dharampore in the Bulsâr District. The town of Châul referred to in some of the old documents of the town of Naôsâri seems to be the latter. I had the pleasure of visiting the first Chaul (Revdândâ) in November 1904, to find, if there were any remains of the fire-temples, referred to by Zakarîya. I found there no vestige of any Parsee population there in previous times.

Journal, B. B. R. A. S., Vol. XII., pp. 325-326.
14*th October* 1876.

"Gadhia Coins of Gujarat and Malwa." By Pandit Bhagvanlal Indraji.

In this paper, Pandit Bhagvânlâl gives the description of a plate in which Mr. Codrington had arranged 20 coins of the type known in Gujarât as Gadhiâ coins and in Kâthiawâd as Gadhaiyâ coins. The coins are so arranged in the plate as to give "the gradual transition from the Persian face and fire-altar, seen in the former (Sassanian coins), into the oblong button dots and lines on the latter (Gadhia) coins, and which showed pretty plainly that the so-called Gadhiâs are a debased imitation of the coins of the Sassanian Kings of about the 6th or 7th Century A.D." [2] The coins show "a pretty complete gradation so as to establish the supposed origin of the Gadhiâ design. . . The name of the coin is derived from the Sanskrit Gardhabhiya meaning of the Gardhabhi dynasty."

According to Wilford,[3] "Gardhâbhi is a name of a family of Sassanian kings subsequent to the period of Varahvân Gor (Behramgour) : consequently, the date of the beginning of this currency would be subsequent to A.D. 420, when that king flourished."[4] The face of the king on the obverse and the fire-altar on the reverse of the coin No. 1, are very clear, and they gradually go on being corrupted in the subsequent coins.

The Sassanian type appears not only on the coins of India, but also in the paintings, such as those of Bâgh in Mâlwâ and Ajantâ in Khandeish, which are believed to have been made about the 6th Century.

[1] Journal, B. B. R. A. S., Vol. XII., p. 57. *Vide* Elliot's History of India, Vol. I, p. 97.
[2] Journal, B. B. R. A. S., Vol. XII, Abstract of Proceedings, p. xxii.
[3] Asiatic Researches, IX., p. 149. [4] Journal, B. B. R. A. S., XII., p. 325.

It is believed, that, during, what Pandit Bhagvânlâl calls, the dark times—the period between the 6th and 8th Centuries—"some of the Sassanian kings may have established their rule somewhere in these districts and had their currency issued, and that their successors (the Chàudâ and Châlukya of Anhilwâda) retained and copied the same type for their coinage."[1] Pandit Bhagvânlâl gives the following order of the coins found in these provinces:—

1. The punched coins, in which the design is punched into the metal.
2. The small coins having Buddhist figures, resembling those on the punched coins, but struck on the metal with a die.
3. The Kshatrapa, erroneously called Sâh coins.
4. The Gupta coins.
5. The Gadhiâ coins.
6. The Mahomedan coins.

On the subject of the Gadhabi family of the Sassanian kings, whose advent into India, and whose coinage seemed to be the origin of the Gadhiâ coins, I would refer my readers to my paper before our Society on "The Bas-Relief of Beharâm Gour (Beharam V.) at Naksh-i-Rustam, and his marriage with an Indian Princess,"[2] wherein, Wilford's researches are referred to at some length, and Beharamgour's visit of India is described fully. I would also refer my readers to James Prinsep's "Essays in Indian Antiquities."[3]

Journal, B. B. R. A. S., Vol. XIII., pp. 152—302.
7th July 1877.

"Christianity among the Mongols till their expulsion from China in 1368: comprising the Eastern Grand Khans or Emperors, with the Western or Persian Khans." By E. Rehatsek.

This paper is as exhaustive as the author's preceding paper on "Christianity in the Persian Dominions."[4] It contains several points interesting from a Parsee point of view.

Speaking about the religion of the Mongols, Rehatsek says: "The powers of Nature had from the most ancient times been personified among Asiatic nations, and according to them, not only the earth and its bowels, but also the sky, is full of spirits, who exert either a beneficent or maleficent influence on mankind; accordingly it is no wonder that this belief was current, not only among the Mongols, but also the Zoroastrians and Hindus."[5]

[1] Journal, B. B. R. A. S., Vol. XII., p. 327.
[2] Journal, B. B. R. A. S., Vol. XIX., No. LI., pp. 58—75. *Vide* above, pp. 271-2.
[3] Edited by E. Thomas, Vol. I., p. 341.
[4] *Vide* above, pp. 244—51.
[5] Journal, B. B. R. A. S., Vol. XIII., p. 181.

The supreme good spirit of the Mongols is Khormusda. "This name of the supreme good spirit is," says Rehatsek, "no other than the Ahura Mazdas or Hormuzd of the Zoroastrians, which had survived among the Mongols from the most remote times, and was thus transformed because they have not 'h' in their language, and because they cannot pronounce the letters 'sd' without adding a vowel to them. The division of spirits into good and bad ones, *i.e.*, Izeds and Devs, is naturally a remnant of the ancient demonolatry of Eastern Asia in general, and of Shamanism in particular, of which Zoroastrianism itself appears to be only a more noble development, founded on the same basis, *i.e.*, the existence of mighty and of subordinate good and evil spirits, exerting either a preserving or a destructive influence on everything contained in Nature."[1] Their Shimnus, a kind of powerful spirit, "resemble the Zoroastrian Ahriman with his evil spirits."[2]

Rehatsek compares the persecution of the Mahomedans by the Mongols with that of the Zoroastrians by the Mahomedans. He says: "When the Mongols took Herat, on the 4th of June 1222 (2nd of Jomàda anterior 619), they are said to have slaughtered more than a million and a half of the population, and their work of pillaging, burning, and demolishing lasted a whole week without intermission. Thus it may be seen how an avenging Nemesis abundantly repaid the Moslems for the great persecutions they had practised on the Zoroastrians, when they destroyed the Sasanian dynasty, subjugated Persia by fire and sword, and thrust Islam on the whole population."[3]

Among the observances ordered by that great Mongol conqueror Chenghiz Khan, one is that of the prohibition "to void urine in water or fire." This, Rehatsek thinks, "is perhaps traceable to the immemorial belief in the sacredness of the so-called four elements still surviving in Zoroastrianism, and formerly universal in the whole of Central Asia; this veneration was carried so far that even the hands were not to be dipped into flowing water, and clothes were not washed, but worn till they fell to pieces: which appears to be an exaggerated application of an injunction, salutary to nomadic tribes, to be sparing of water, which they generally carry about in their wanderings in skins, that can be replenished only when they happen to pass near streams."[4]

In my review[5] of Rehatsek's paper on Christianity in the Persian dominions, I referred to an instance, in which the early Christian bishops of Persia professed to drive away demons that possessed certain people,

[1] *Ibid*, p. 182. [2] *Ibid*, p. 183. [3] *Ibid*, p. 204.
[4] *Ibid* pp. 214-215. [5] *Vide* above, p. 248.

and thus gained the faith of the non-Christians by their so-called miracles. In this paper also, we have a similar case of the early Christian fathers professing to drive away the demons. Prof. Rehatsek quotes [1] the Franciscan father Odoric of Udine, who says: "In those regions, God Almighty hath bestowed such grace upon the Minor Friars that in Great Tartary they think it a mere nothing to expel devils from the possessed,—no more, indeed, than to drive a dog out of a house. For there be many in those parts, possessed by the devil, both men and women, and these they bind and bring to our friars from as far as a ten-days' journey off. The friars bid the demons depart forth instantly from the bodies of the possessed in the name of Jesus Christ, and they do depart immediately in obedience to his command. Then those who have been delivered from the demon straightway come themselves to be baptized. . . . And in this way our friars baptize great numbers in that country."[2]

It appears, that as late as in the reign of Gh'azan Khân, who reigned from 1295 to 1303 as a Western or Persian Mongol Khan in Persia, Zoroastrian temples were plundered and their riches taken away by the Mongols. Rehatsek speaking of this Khan says: "Afterwards we find Gh'âzân Khan. . . . . giving written orders to them (*i.e.*, to his troops), in consequence of which they plundered a number of Christian Churches and Zoroastrian temples known to contain gold and jewels. To please Nûrûz, who had raised him to the throne, but chiefly to extort money, Gh'âzân persecuted Christians; Zoroastrians, however, Jews, and even Buddhists were not excepted."[3]

III.

Now we come to the third part of our paper. We will have a glimpse here into the Abstracts of the Proceedings of the Society from a Parsee point of view.

Transactions of the Literary Society of Bombay, Vol. I., pp. xxv—xli. *26th November* 1804.

"Note (entitled Population of Bombay) on Preliminary Discourse." By Sir James Mackintosh, President of the Society.

In his very first discourse, read at Parel on 26th November 1804, on the occasion of the foundation of the parent Society, "The Literary Society of Bombay," Sir James Mackintosh, the founder and the first President, said: "The objects of these (scientific) inquiries, as of all human knowledge, are reduceable to two classes,"[4] (1) Physical and (2) Moral. Among the moral objects of inquiries, he attached great importance to statistics about

[1] Journal, B. B. R. A. S., Vol. XIII., p. 276.
[2] Cathay and the Way thither, by Col. Yule (1866), Vol. I., pp. 155-156.
[3] Journal, B. B. R. A. S., Vol. XIII., p. 292. [4] Transactions, L. S. B., Vol. I., p. xviii.

"the numbers of the people; the number of births, marriages, and deaths; the proportion of children who are reared to maturity."[1] He added: "I need not expatiate on the importance of the information which such tables would be likely to afford. I shall mention only as an example of their value that they must lead to a decisive solution of the problems with respect to the influence of polygamy on population, and the supposed origin of that practice in the disproportioned number of the sexes."[2]

In the Note latterly attached to this Preliminary discourse, and specially referring to the above part of inquiry, we find the following statistics of the Parsee population of Bombay in 1811 A.D. As they are not found in any Parsee records, they are worth noting here :—

"List[3] of Parsee caste now Inhabitants of Bombay.

Men from 20 to 80 years of age	3,644
Women do do.	3,333
Boys from 20 down to infant children	1,799
Girls do. do.	1,266
Total ...	10,042

Bombay, February 28, 1811."

On the subject of the mortality among the Parsees during the years 1800 to 1808, the Note says :[4] "It must be observed that many of the Parsees come to Bombay in search of fortune after having reached the age of manhood, and return with a competency to their native countries. Some of them are men of great wealth; many are in easy circumstances; and none are of the most indigent classes. From these circumstances the comparatively low rate of their mortality and the smaller number of their females will be easily understood. The famine increased their mortality from 311 in 1802 to 563 in 1804, an augmentation almost entirely to be attributed to deaths of the fugitive Parsees, who were attracted to Bombay by the well-known charity of their opulent fellow-religionists."

To compare with the above figures of February 1811, given in the Note on the Preliminary Discourse of Sir James Mackintosh, I give below the figures of the Parsee population, according to the last Census of 1901 :—

Men from 20 to 80 years of age	14,706
Women do. do.	13,005
Boys from 20 down to infant children	9,571
Girls do. do.	8,949
Total ...	46,231

[1] *Ibid*, p. xxi. [2] *Ibid*. [3] Transactions of the Literary Society of Bombay, Vol. I. (New Edition), p. xxxix. [4] *Ibid*, p. xxix.

For some further statistics of the Parsee population of Bombay and of the different towns of India, including Aden, I would refer my readers to the printed accounts of the funds of the Parsee Punchâyet for the Samvat year 1957 (1900-1901).[1]

From the extracts of the proceedings of the Society given in the fourth volume of the Journal, we cull the following points of interest from a Parsee point of view :—

Westergaard's edition of the Zend Avesta.

At the meeting of 20th March 1851, Dr. Wilson directs "the attention of the Society to a critical edition of the whole of the Zend Writings" that was being prepared by Prof. Westergaard, of Copenhagen, an Honorary Member of the Society. The Society subscribed 5 copies of the book. In his letter to Dr. Wilson, Westergaard writes about, what he calls, the two dialects of the Zend language. "It is not difficult to distinguish between them, especially aided by the oldest manuscripts, as the difference is very strong, and observed not only in the use of different words, or different forms of the same word, but even in the grammatical structure. As the Zend language must be referred to the Eastern parts of Irân, I hazard resting, among other facts, on the authority of Straled, about the difference of the dialects of Bactriana and Sogdiana to assign to our two dialects the names of Bactrian and Sogdian in such a way that I should call with the name of Sogdian that dialect in which the greater part of the Yashna is composed, as it is evidently more rude and more unpolished than that of the other parts of the Zendavesta."[2]

Dr. Haug said of Westergaard's edition: "Westergaard has taken great trouble to give a correct text, according to the oldest manuscripts accessible to him, and his edition is, in most cases, far preferable to the manuscripts used by the priests of modern times. If older manuscripts than those used by Westergaard be known to the Dasturs, they should consider it their bounden duty to procure them for the purpose of collation with Westergaard's valuable edition, so that they may ascertain all preferable readings for their own information and that of other scholars. Why will they remain behind the Brahmans and the Jews, who have preserved their sacred writings so well and facilitated modern researches to so great an extent?"[3]

These words of Dr. Haug have not fallen on deaf ears. The latest edition of the Avesta is the very valuable text prepared by Professor Geldner, in the preparation of which, the Dasturs and Mobads of Bombay and elsewhere have offered a good help by lending their old manuscripts.

[1] Appendix, pp. 1—30. [2] Journal, B. B. R. A. S., Vol. IV., p. 143.
[3] Haug's Essays, 2nd ed., p. 77.

Westergaard's Bundehesh.

At a meeting of 9th October 1851, Dr. Wilson read an extract of a letter from Prof. Westergaard, intimating the publication of his Bundehesh, "and expressing his opinion, founded on a critical examination of the so-called Pehlivi writings, that they are not in any Sasanian language, but merely in a dialect (probably the Kirmanian) of the modern Persian, disguised by the use of an imperfect alphabet, often now mis-read by the Parsees, the Shemitic words introduced into it being merely corrupted Arabic."[1]

I have referred above [2] to Dr. Spiegel's view about the Pahlavi language, which is opposed to that of Westergaard. For remarks on the Bundehesh, I will refer my readers to Dr. West's essay on the Pahlavi language and literature recently published under the title of "Pahlavi Literature." [3]

From the Extracts of the Proceedings of the Society given in the fourth volume of the Journal, we gather the following points of interest from a Parsee point of view :—

English version of the Gujarati translation of the Zend Avesta.

At a meeting of the Society, held on 31st March 1850, "the Rev. J. M. Mitchell had read an extract of a letter from Dr. Graul of Leipsic, containing a strong request that the Bombay Branch of the Royal Asiatic Society would aid in the rendering into English of the Gujarâti versions of the Zend Avesta as one important contribution towards the elucidation of the Zend text." After some discussion the following resolution was unanimously agreed to, *viz.*—"That the desirableness of having an English translation of the Gujarâti version and the commentary of Framjee Aspandiarjee on the Zend Avesta having been brought forward, the Society fully recognizes the importance of the proposal, and resolves to discuss it more fully at its next meeting; appointing in the meantime the Rev. Dr. Stevenson, Rev. J. M. Mitchell, C. J. Erskine, Esq., and H. Green, Esq., to consider and report on the whole question."[4]

At a meeting of the Society, held on 18th April 1850, the Committee "reported that, after full inquiry, it was convinced of the desirableness and practicability of the scheme, but as several modes of carrying it into execution had been suggested, they would beg permission to report on this specific point to a future meeting. The Society agreed to the report and continued the Committee."[5] The proposed translation has not appeared as yet.

A Zend Dictionary.

At a meeting of the Society, held on 13th November 1851, the late Mr. Dhunjeebhoy Framjee Patel read a Prospectus concerning a Zend Dictionary

[1] Journal, B. B. R. A. S., Vol. IV., p. 153. [2] *Vide* above, pp. 222—26.

[3] Grundriss der Iranischen Philologie II., Band. i, Lieferung III.

[4] Journal, B. B. R. A. S., Vol. III, No. XIV, Extracts from the Proceedings of the Society, pp. 342-343. [5] *Ibid*, p. 343.

he proposed publishing in Gujarâti and English and submitted a specimen of it.[1] At a meeting, held on 14th October 1852,[2] Rev. Murray Mitchell communicated to the Society, a few extracts from a letter, which he had received from Prof. Spiegel. In that letter Dr. Spiegel referred to the above prospectus of Mr. Dhunjeebhoy Patel, and expressed his satisfaction at the prospect of having a Zend dictionary in English. He said: "I am convinced that we may still learn much from the Parsis; and I want to get out of them what they do know as soon as possible, and before it vanishes entirely."[3] The Dictionary proposed by Mr. Dhunjeebhoy Framjee Patel has not been published. But we have the satisfaction to know, that the wish of Dr. Spiegel has been fulfilled in his lifetime, nearly 48 years after its first expression, by the publication of a Zend Dictionary in English and Gujaràti, in 1900 A.D., by the pen of the late lamented Ervad Kavasji Edalji Kanga, Principal of the Mulla Feroze Madressa of Bombay. In the death of that unassuming learned scholar in March 1904, Parsi scholarship has lost one of its best exponents. He has also published the Gujaràti translation, with grammatical notes, of the whole of the Avesta text and an Avesta grammar in Zend. His Gujarâti translations will remain as standard translations among the Parsis for many a year to come, because they are prepared on modern scientific methods, while the translation of the late Mr. Aspandiarji Framjee, published under the auspices of our Society on the recommendation of Dr. Wilson, are prepared in the old traditional way. Mr. Kavasji Kanga has also prepared a Dictionary from English into Avesta and it will be shortly published as his posthumous work.

Spiegel's Texts.

At a meeting held on 12th February 1852, Rev. Murray Mitchell referred in his paper on Zend literature, reviewed above,[4] to Dr. Spiegel's edition of the Avesta texts and their Pahlavi rendering. The Society resolved[5] to buy two copies of the book, and opened a subscription list for the book. Revd. Mitchell also referred to this book in his letter placed before the Society at its meeting of 14th October 1852.

Orbituary Notices of Erskine and Burnouf.

In the fourth volume (No. XVI.) we have a "brief memorial" and the obituary notice of two orientalists.[6]

The first[7] was presented on the 15th July 1852. It was a "Brief Memorial of the Literary Researches of the late William Erskine," Esq., by Dr. John Wilson. This memorial article presents an interesting estimate of the literary work of Mr. Erskine, the first Secretary of our Society, who was associated with his father-in-law, Sir James

[1] Journal, B. B. R. A. S., Vol. IV., p. 155. [2] *Ibid*, pp. 469-470. [3] *Ibid*, p. 470.
[4] *Vide* above, pp. 203—9. [5] *Ibid*, p. 462. [6] Journal, B. B. R. A. S., Vol. IV., pp. 276—288.
[7] Journal, B. B. R. A. S., Vol. IV., pp. 275—284.

Mackintosh, the founder of the Society, in most of his good work in connection with the Society. We have noticed above [1] the papers on Irânian subjects read by Erskine to which Dr. Wilson refers.

The second is an orbituary notice of a French scholar. It is entitled, "The late Professor Eugène Burnouf, of Paris, and his Oriental Publications." [2]

Under this heading, the Journal of our Society has transferred to its columns, with a few remarks of its own, the orbituary notice of this great French savant, who was an Honorary Member of our Society. The character of Burnouf's writings is very excellently summed up in the notice in these words:—"Ses travaux resteront comme des modèles où la rapidité du coup d'œil, la méthode de l'examen, la netteté des conclusions sont accompagnées d'une conscience pleine d'autorité."[3] His "Commentaire sur le Yaçna," which is really a monumental work, clearly illustrates this view of his writings. Anquetil Du Perron had brought to light the ancient writings of the Avesta, and it was left to his compatriot, after about 70 years, to complete his work by laying the foundation of the scientific and philological method of studying the Avesta. As Prof. Wilhelm says, his book is still a model of the way in which Avesta studies should be carried on. Prof. Wilhelm says: "Son livre est encore aujourd'hui un modèle de la méthode à suivre dans les études avestiques. Il nous montre comment on doit travailler, ce que le travailleur doit demander à ses sources et à lui-même. La *méthode de Burnouf est purement philologique*."[4]

The editor of our Journal says in his preliminary remarks that he was "a most valued correspondent of most of our Eastern scholars." [5] This remark reminds us of a book published in 1897 by Madame L'Delisle, the daughter of M. Burnouf, under the title of "Papiers d'Eugène Burnouf, conservés a la Bibliothèque Nationale. Catalogue dressé par M. Léon Feer." In the appendix to this book, we have the letters of Burnouf addressed to different correspondents in the matter of his books and studies. Among these correspondents, we find the name of a well-known member of our Society, the late Mr. Manockjee Cursetjee[6]. We have in this book, 12 letters of Burnouf, addressed to Mr. Manockjee—from 26th June 1836 to 16th May 1845. These letters, the first of which begins with the formal word "Monsieur," and the last with the affectionate and friendly terms "Mon cher et honorable ami," give us a glimpse of the character of two of our past members, who both have left, in their own spheres, lasting memo-

[1] *Vide* above, pp. 167-68, 177—183, 183—87. [2] Journal, Vol. IV., pp. 284—288. [3] *Ibid*, p. 287.
[4] Études Avestiques. La Critique et l'Exégèse de l'Avesta (Extrait du Muséon 1886), p. 11.
[5] Journal, B. B. R. A. S., Vol. IV., p. 284.
[6] *Vide* the *Jam-i-Jamshed* of 20th January 1900, for an outline of the correspondence between Mr. Manockjee and M. Burnouf, the two distinguished members of our Society.

rials of their services, direct or indirect, to the Parsee community. Mr. Manockjee Cursetjee's name is well known among us, as that of, if not the first, one of the first, champions of female education among the Parsis. Burnouf's monumental work, "Commentaire sur le Yaçna," has given an altogether new turn to the study of the Avesta. In the first letter to Mr. Manockjee Cursetjee, M. Burnouf gets a little enthusiastic, for having an opportunity to correspond with a man of the blood of Cyrus, Darius and Xerxes. After referring to the fault of the Parsees in having neglected their ancient language,he says:"Mais en même temps, je serais bien malheureux si je pouvais croire qu'il fût permis de supposer, d'après mes observations critiques, que j'ai voulu manquer de respect pour les nobles débris d'un des peuples les plus héroïques et les plus grands de l'antiquité ; je ne puis au contraire penser sans un vive émotion qu'il subsiste encore dans l'Inde des reste précieux de cette belle nation persane, dont l'histoire se lie se intimement pendant deux siècles à tout ce que l'antiquité européenne nous a légué de plus grand, et que ces débris ont su, dans les temps modernes, s'élever par le travail et l'exercise constant de leurs devoirs religieux et moraux au rang des nations les plus respectables de l'Asie. Permettez-moi même d'eprouver quelque orgueil de me trouver, grâce a vôtre bienveillance, si directement en rapport avec un des plus glorieux représentants de cette illustre race. Il me semble que je converse avec un homme du sang des Kûlus, des Dârâ et des Kchâhrchâ, que nous autres Européens nommons Cyrus, Darius et Xerxès, et dont j'ai essayé de lire les noms et d'expliquer les pensées dans le Mémoire sur vos antiques inscriptions de Perse, que je vous prie de vouloir bien recevoir avec indulgence."[1]

In this letter, Burnouf expresses the great pleasure he felt in having the opportunity "to converse," as he said, "with a man of the blood of Cyrus, Darius and Xerxes" by letters. Then, how much more must have been his pleasure, when, later on, he had the opportunity of meeting personally that man? From an article in "La Nouvelle Revue" entitled "Lettres inédites d'Eugène Burnouf et de Manakji Kharshedji," from the pen of Mademoiselle Menant, we learn, that when Mr. Manockjee Kharshedji went to Paris in December 1841, M. Burnouf on meeting him, exclaimed : "A living Parsee, this is a glorious day !"[2] We find from M. Blochet's[3] catalogue of Parsee books in the National Library of Paris, that Mr. Manockjee Kharshedj had helped Burnouf in his studies by presenting him with several Parsee books. The earliest date of this presentation is 1838.[4]

[1] Papiers d'Eugène Burnouf, p. 127. [2] La Nouvelle Revue, 1891-92, p. 504.
[3] Catalogue des Manuscrits Mazdéens de la Bibliothèque Nationale par E. Blochet, 1900, pp. 12, 57, 73. [4] *Ibid.*, p. 57.

The obituary notice of Burnouf transferred to the columns of our Journal, presents a good appreciation of Burnouf's literary work. We may here draw the attention of our readers to M. Barthelemy St. Hilaire's appreciation of Burnouf's works, translated into English by the late Mr. Ardeshir D. Lalkaka (1901), a promising Parsee student, who lately died in the prime of his youth.

From the Abstract of the Proceedings of the Society given in the fifth volume of the Journal we gather the following points of interest :—

1. The Hajiabad Inscriptions.

At the meeting of 20th January 1853,[1] the late Dastur Peshotan Behrâmji Sanjânâ submitted to the Society, through Mr. Green, a member of the Society, his Gujarâti version of the Pahlavi inscription at Hajiâbâd near Naksh-i- Rustam. Mr. Manôckjee Cursetjee, another member, was requested by the Society to communicate his views regarding the Dastur's decipherment and translation. On the receipt of this letter, "an animated conversation took place as to the value of the Dastur's labours. . . . . The Society requested that the Gujarâti version forwarded by the Dastur, through Mr. Green, should be rendered into English, and submitted to the Society. A letter from Mr. Dhunjeebhoy Framjee was also read, in which he stated that upwards of two years ago he had deciphered and translated the same important inscription, arriving, however, at considerably different results from those of the Dastur's labours. The Secretary was requested to communicate with Mr. Dhunjeebhoy Framjee (who was not present) and obtain a copy of his translation, and the remarks which he stated himself prepared (? proposed) to make on the paper of Mr. Pestonji Behramji, in the hope that the communication of both these gentlemen in this difficult ancient record might ultimately be inserted in the Journal of the Society."[2]

From the proceedings of the next meeting, *i.e.*, of 17th February 1853, we learn that "the translations of the Pehlivi inscriptions at Haj-i-Abad, with the observations of the translators, Messrs. Dhunjeebhoy Framjee, and Pestonjee Dastur, which accompanied them, were delivered to Professor Harkness, for examination and report at the next meeting."[3]

From the report of the proceedings of the meeting of 15th September 1853, we find Mr. Dhunjeebhoy Framjee stating to the Society that he had seen copies of the Haj-i-Abad Inscription, both in Sir Ker Porter's Travels[4] and in Prof. Westergaard's edition of the Bundhesh and that

[1] Journal, B. B., R. A. S., V, p. 830.
[2] *Ibid*, p. 380.
[3] Journal, B. B., R. A. S., V p. 382.
[4] Travels in Georgia, Persia, Armenia, Ancient Babylonia, &c., by Sir Robert Ker Porter, Vol. II, p. 513, Plate XV. (It is a pity, that somebody has removed this plate from the copy in the library of the Society.)

he found the latter carefully taken from the original. He had first deciphered and translated the inscription from Sir Ker Porter's copy, but he now submitted a fresh translation from Westergaard's copy. He added, that, as yet, he did "not feel quite competent to place before orientalists a satisfactory translation of this inscription, because he is still doubtful of the orthographical and interchangeable value of some of the characters, which he will be better able to explain in the preface to his Zend Dictionary." [1]

From the report of the proceedings of the meeting of 20th October 1853, we find that Dastur Peshotan also submitted his new translation made from Westergaard's more correct copy. He said with confidence: "I have not spared any pains to render my decipherment and version faithful and accurate. I therefore have no hesitation in submitting the result to the criticism of the European public."[2]

The Society resolved to publish the decipherments and translations of both the authors in the next number of the journal. We do not find it published either in the next number, or in any of the succeeding numbers of the journals. Nor do we find any reason given for it. But it appears from a book of Mr. Dhunjeebhoy Framjee Patel,[3] that it may be due to the difficulty of getting the proper types. Mr. Dhunjeebhoy has latterly published his own decipherment and translation.

2. Sepulchral Urns.

The report of the proceedings of the meeting of 17th November 1853, speaks of the presentation to the Society, by Mr. Barker, of the sepulchral urns "found in a mound called Tel Balari in the vicinity of Bagdad, which was excavated under his direction."[4] They were found in "a sepulchral vault, containing about 150 urns, piled upon one another about ten feet deep, in a semi-circular form. Some of these contained calcined bones and ashes, also pieces of vitrified earth, glass and beads."[5] These urns are the ossuaries, or the Astodâns of the ancient Persians, referred to by Erskine in his paper before the Society on "Observations on two sepulchral urns found at Bushire."[6] We know that this custom of preserving bones prevailed also among people other than the ancient Persians.[7] The fact of glass and beads being found in these urns, shows that they were the ossuaries, not of the ancient Zoroastrians, but of some other people. The Museum of our Society contains the old Astodân, sent to the Anthropological Society of Bombay, as referred to above,[8]

[1] Journal, B. B., R. A. S., V, pp. 393-94. [2] *Ibid.* p. 396.

[3] The Origin and Antiquity of the Arian Family of Languages' (1861), Preface, p. VIII.

[4] Journal, B. B., R. A. S., V, p. 398. [5] *Ibid.*

[6] Transactions, L. S. B. I., pp. 206–13. *Vide* above, pp. 167—168.

[7] Babylonian and Oriental Record of 1890. Dr. Casartelli's article, entitled "Astodâns and the Avestic funeral prescriptions."

[8] *Vide* above, p. 167.

and transferred by the latter Society to our Society, when it transferred its *locale* to our rooms. It also contains two other urns which seem to be the urns referred to here, as presented by Mr. Barker.[1]

3. Dr. Wilson on the Avesta Language.

In the meeting of 11th October 1855, was placed before the Society, the paper of Professor Spiegel, "On the Avesta and the Zend and Pahlavi languages."[2] I have referred to this paper above, at some length.[3]

I would refer here to one or two points in the remarks made by the late Dr. Wilson on Professor Spiegel's paper as reported in the Abstract of the Society's Proceedings.[4]

In support of his views that "the most ancient Avastâ pieces are certainly later than those contained in the Indian Vedas,"[5] Dr. Wilson points to the fact that "with many resemblances to the religion of the Vedas, they (the Avesta pieces) have their antagonisms to it which shew posteriority."[6] To illustrate his point he says: "The Sun (Asura sometimes) is a god in the Vedas, with only subordinate attention, while he is the chief deity of the Zend writings, endowed with intellectual and moral attributes, Ahuro Mazdâo (Hormazd), the multiscient Sun or Lord, while in another form he is Hvarĕ-Kshaeta, the Resplendent or Ruling Sun or Khurshid."[7] I wonder, how Dr. Wilson identifies Sun or Khorshed with Ahura Mazda. There is nothing of that kind in the Avesta. As to the antagonism itself, one fails to understand, how, that in itself, unsupported by other facts or circumstances, could prove the posteriority of one set of writings or the other.

Dr. Wilson, at the conclusion of his remarks, on seeing so many of his Parsee friends present, expressed his satisfaction that they were not "altogether standing aloof from the interesting inquiries to which their literature is giving rise."[8] If one is to believe—and I am one of those who do believe—that the spirits of the dead have a watchful interest in the good works with which they were associated in their lifetime—and you may understand that form of belief in whatever way you like—the spirit of that great Orientalist, who ruled, with a wachful eye, for several years, over the work of this Society, would be pleased, on the centenary of his dear institution, to observe, that the satisfaction expressed by him, about fifty years ago, was well expressed. As a proof of that, I would refer to two papers, read by Rev. Dr. Casartelli, Professor at St. Bede's College, Manchester,

[1] I had the pleasure of exhibiting these at the Industrial and Agricultural Exhibition held in Bombay in December 1904 and at the Centenary Conversazione of our Society held on 17th January 1905.

[2] Journal, B. B., R. A. S., V, pp. 492—96.

[3] *Vide* above pp. 222—26.

[4] Journal, B. B., R. A. S., Vol. V, pp. 693-95.

[5] *Ibid.*, p. 694.

[6] *Ibid.*

[7] *Ibid.*, p. 694.

[8] *Ibid.*, p. 695.

before the 9th[1] Oriental Congress at London (1892) and the 13th Oriental Congress[2] at Hamburg (1902) on "The Literary Activity of the Parsees during the last decade." These two papers show the literary activity of the Parsees in India during the last twenty years.

4. Prof. Spiegel on Parsee ceremonies.

At the Meeting of 14th August 1856, was read an extract from a letter, dated 7th May, 1856, from Professor Spiegel to Rev. J. M. Mitchell. Spiegel herein speaks of his coming German translation and of his introduction to that translation. Speaking of the Parsee ceremonies he says: "I have been astonished myself by the close resemblance which the greater part of these ceremonies bears to the institutions of the Christian Church in the fifth and sixth centuries. However, there is nothing very puzzling in this fact, for the ancient Parsis, as I have had occasion to state before, studied in the Christian schools of Syria and Persia. It was quite natural that they should take an interest in the religious discussions of their teachers and apply the results to their own religion when that was possible. But I scarcely need to tell you, that great as the similarity is in some instances, the difference in others is not less striking."[3]

Well, the most important ceremonies of a religious community are the funeral ceremonies. A study[4] of these ceremonies shews, that these ceremonies, as performed, even now, by the modern Parsees, rest on most of the injunctions of the Vendidâd and of other parts of the Avesta, which were written long before the Christian era.

In the 6th volume of the Society we find no paper of special interest to the Parsees. From the Abstracts of the Society's Proceedings as reported in the 6th volume, we gather the following points of interest from a Parsee point of view.

Romer and Bunsen on Zoroaster.

At the Meeting of 10th September 1857, a letter, dated 18th July 1857, from Mr. J. Romer was read. He sends a copy of an issue of the "Révue de l' Orient," which contains a paper on "The Pahlavi of the Zend Avesta." He assumes that he has sufficiently established the fact that "it may not be doubted that *remains* of writings extant in the fifth century, when the Armenian Bishop Essick carried on a religious controversy with the Persian

[1] *Vide* Transactions of the Ninth Congress, Vol. II, pp. 528—36.

[2] *Vide* Asiatic Quarterly Review, July 1903. These papers have been also published in separate forms.

[3] Journal, B. B., R. A. S., Vol. V., p. 704.

[4] *Vide* my paper on "The Funeral Ceremonies of the Parsees, their Origin and Explanation," Journal Anthropological Society of Bombay, Vol. II, No. 7, p. 405.

Magi, have, as shown by their agreement, furnished materials for the composition of some parts of the sacred books of the Parsis, whilst it is manifest, by the testimony of undisputed facts, that the languages named Zend and Pahlavi, in which these books are written, are artificial, not genuine, original, or indigenous tongues at any time spoken by any people or nation known to history."[1] Mr. Romer adds that he has arrived at this conviction after a diligent, though "somewhat desultory search for truth."[2] I think, that it is this desultory search that has not enabled him to follow the trend of thought expressed on this subject by specialists in this line at the time.

In a postcript to this letter, he calls Zoroaster "an imaginary personage."[3] Well, such attempts to consider prophets mythical personages have been made more than once; and it is in reply to these attempts that Baron Bunsen[4] says, "The reasoning Aryan, especially, whose intellect roves fearlessly in all directions as on its own domain, seeking for first truths, comes face to face with the great problems of humanity: Whence comes evil, if the good God rules this world? How could evil spring from God? How arise without God, and how continue to exist contrary to His will? Such thoughts it was, which, under the reign of Vistaspa, an undoubtedly historical king of Bactria . . . . were agitating one of the mightiest intellects and one of the greatest men of all time—Zarathustra Spitama. Accounted by his contemporaries a blasphemer, atheist, and fire-brand worthy of death; regarded even by his own adherents after some centuries as the founder of magic, by others as a sorcerer and deceiver, he was nevertheless recognized already by Hippocrates as a great spiritual hero, and esteemed the earliest sage of a primeval epoch—reaching back to 5,000 years before their date—by Eudoxus, Plato, and Aristotle. The shallow eighteenth century had already voted him a bygone fanatic or impostor, when a zealous French inquirer, some eighty years ago, set out upon his tracks, and not without success. . . . . The key, however, to the understanding of the man and his place in history, we find, as it seems to us, in a hymn consisting of eleven three-lined strophes, having reference to some great public transaction, which was, if we mistake not, no other than that of his first appearance before the assembled magnates of the land, in the character of a reformer. It is a parallel to Luther's ninety-five Theses and his affixing them upon the church door at Wittenberg."

[1] Journal, B. B., R. A. S., Vol. VI., (1861). Abstract of Proceedings at the end, p. XXXIX [2] *Ibid.* [3] *Ibid.*

[4] "God in History or the Progress of Man's Faith in the Moral Order of the World", translated from the German by Winkworth. Vol. I, pp. 275-6.

Mr. Dhunjeebhoy Framjee Patel on "The Authenticity of the Iranian Family Languages."

From the Proceedings of the Meetings of 8th October [1] and 10th December,[2] 1857, we find that Mr. Dhunjeebhoy Framjee Patel had read before the Society, a paper, in two parts, on "The Authenticity of the Iranian Family of Languages." The paper is not published in our Journal, but a short abstract of it is given in it. In the first part the author questioned "the opinion of W. Schlegel, Sir W. Jones, Richardson, Vans Kennedy and Mr. Romer that the Zend language was fabricated by the Parsis after their emigration from Persia. He maintains that the language did formerly exist in Persia. . . . He observed that, had the language been forged by the modern Parsis, it could scarcely have stood the test when examined by the light of comparative philology." [3]

In the second part of the paper, the author "asserted that the Zend language was independent of the Sanscrit." In this paper, he also "called attention to the Huzvaresh, or proper Pehlvi language." "In conclusion, he stated that he had mainly, if not entirely, indented on the Continental authors of Europe for the support of his aguments, leaving aside the Persian and other national authorities with a view to avoid prejudice."[4]

This paper has been published in a book form by Mr. Dhunjeebhoy, under the title of "On the Origin and Authenticity of the Arian Family of Languages, the Zend Avesta and the Huzvaresh, (1861)."

From the Proceedings of the Meetings of the Society, published in the eighth volume of the Journal, we note the following points :—

Sir Cawasji Jehangier's Donation of Rs. 5,000.

We learn from a report [5] of the Meeting of 14th July 1864, that Mr. (afterwards Sir) Cowasji Jehangier Readymoney had generously presented to the Society, works on Oriental Literature of the value of Rs. 5,000. In moving the adoption of the report for the year 1863-64, Dr. Wilson referred to this munificent gift and said : "The presentation made by Mr. Cowasji Jehangier had done much to supply the immediate wants of the Society in the matter of Oriental Literature as furnished by the press of Europe. Through means of it, the Society was now able to profit by the progress made in Eastern research in many of the countries of the West."[6]

[1] Journal, B. B., R. A. S., Vol. VI, p. XLI.
[2] *Ibid.*, p. XLVIII.
[3] Journal, B. B., R. A. S., Vol. VI, pp. XLI-XLII.
[4] *Ibid.*, p. XLVIII.
[5] Journal, B. B., R. A. S., Vol. VIII, Abstract, p. XVI.
[6] *Ibid.*, p. XXV.

The Society's Income and Oriental literature.

The following words of Dr. Wilson, uttered by him at the above Meeting, are worth quoting, to impress upon the present members of the Society, the necessity of spending a good part of the Society's income upon books of Oriental literature. Dr. Wilson referring to "the liberal contribution of three hundred Rupees a month lately voted to the Society by Government," said: "This sum would, no doubt, be an important item in the future income of the Society; but it must be borne in mind that it had a special destination. It was not intended to relieve the members from their usual contributions to the support of the library, and the establishment maintained for their own benefit, but for the extension of the labours of the Society in Oriental research. The similar contribution long given to the Asiatic Society in Bengal, was wisely devoted to the publication of the Bibliotheca Indica, a most valuable collection of Sanskrit, Arabic and Persian texts; and we, too, in Bombay, it must be remembered, have a similar work to effect. The publication of Oriental texts proceeds but slowly, and it needs all available help in the West as well as in the East of India." [1]

The Hon'ble Mr. Frere, the President, "confirmed what had just been said by Dr. Wilson respecting the objects of the monthly sum granted by Government."[2]

The Hon'ble Mr. Frere, on the first Parsee Member, Mr. Manockjee Cursetjee, and native members.

In the address, which the President, the Hon'ble Mr. Frere, delivered at this annual meeting, when he resigned his post, we find the following reference to the election of the first Parsee and the first native as a member of this Society. He said, "Those of you, who have been as long connected with the Society as I have been, will recollect the great opposition which was made in the year 1833[3] to the admission of a native as a member of the Society. It is a good rule of our Society, that no record is ever kept of those who have been proposed as members and black-balled, but it is now a matter of history, that notwithstanding the exertions made by some of the most popular and influential of our members, they signally failed in getting this native admitted into the Society as a member, and it was not until Manockjee Cursetjee had been elected a member of the Royal Asiatic Society, and his friends claimed as a right for him to be admitted a member of this Branch Society that the door was opened.[4] All honour be to him for his characteristic perseverance and indomitable courage on this as on all occasions. After he was admitted—the Hon'ble Juggonath Sunkersett, Sir Jamsetjee Jejeebhoy, and others soon followed: and good reason we

[1] *Ibid.*, p. XXXII. [2] *Ibid.* [3] *Ibid.*, p. XXXIX. [4] In January 1840.

have not only to be proud of our native members, but to be grateful to them for the splendid additions they have made to our Library and Museum. To whom are we so much indebted for presents of Books and a large and costly collection of coins as to Cowasji Jehangier Ready-money, Esq., and the Hon'ble Juggonnath Sunkersett; and have not Bal-Gungadhur Shastree, Dr. Bhâû Daji and Dhunjeebhaee Framjee been large and useful contributors to our Journal. Gifts and contributions, such as these, may well make the Society proud, and grateful to our native members."[1]

It appears, that the President, the Hon'ble Mr. Frere himself, had a great hand in the matter of opening the doors of the Society, at first to Mr. Manockji Cursetjee, and then to other native members, because, in the address presented to him, on 17th March 1865, when the then Governor, Sir B. Frere was present, we read the following words :—"Above all, we would most gratefully acknowledge your ready and generous appreciation of the desire of native gentlemen to enter and enrich this Society. To this we owe the strength which we derive from a body of fifty native subscribers, and the truly noble benefactions of the Honorable Juggonath Sunkersett and of Messrs. Cowasjee Jehanghier and Premchund Roychund to our Library and Museum. The importance of your appreciation of the native liberality, during the present critical period of the history of Bombay, cannot be too highly estimated."[2]

The Hon'ble Mr. Frere refers to this point in his reply, and says :— "I may remark, however, that the Society now really, is Asiatic, which it hardly was before, but which I trust it will ever continue to be."[3]

We observed above, that in his address in 1864 the Hon'ble Mr. Frere, the then President, paid due honour to the late Mr. Manockji Cursetji for getting the doors of our Society and its splendid library opened for his native brethren. Forty years after this, on the auspicious occasion of the Centenary of our Society, we may repeat the words of the then President and say "All honour be to him." If I, as his co-religionist, may be permitted to remember his name in the religious language of our ritual, I will say, "Behdin Manockjee Behdin Cursetjee *aider Yâd bâd anôsheh ravân ravâni*," *i.e.*, "May the soul of the immortal-souled Manockjee Cursetjee be remembered here."

From the Proceedings of the meetings of the Society reported in the 9th volume, we gather the following notes, which may interest a Parsee.

Dr. Wilson on the Parsees and their Literature.

In the report of the special meeting[4], held on 17th February 1870, to do honour to Dr. Wilson, who was then going out to Europe for two years, we find Dr. Wilson making the following reference to the Parsees and to the work done by the

[1] *Ibid.*, XXXIX. [2] *Ibid.*, LXXII. [3] *Ibid.*, LXXIV.

[4] Journal, B. B., R. A. S., Vol. IX, Abstract of Proceedings, pp. CLXVI-CXCIII.

Society in the matter of their literature, and to the work begun by them in their study of Iranian literature. He says,[1] "Sir John Malcolm, in an early address he delivered before this Society, said that in the first instance Bombay must be specially looked to for an elucidation of the ancient Zoroastrian faith." This remark was founded on the fact that here we have a considerable body of the descendants of the ancient Persians residing amongst us, who are in possession of the remains of the literature of Ancient Persia, who show most vigorous action in mercantile life, and who, by their union and energy, have done a great deal to advance the cause of general improvement in this country. Our Society has, in regard to this matter, done much that is of great consequence.

Mr. William Erskine, in his various learned and valuable papers laid before the Society, produced some remarkable elucidations of the ancient religion of Persia ; and (partly in consequence of the papers which he and others furnished), Professor Rask was sent to this country by the King of Denmark, and was successful in obtaining most of those valuable relics of the ancient world which are now in the University Library of Copenhagen. My own discussions with the Parsis, and their rejoinders to some of my publications, followed ; and with my subsequent larger work on the Parsi Religion, they attracted attention not only in the religious but literary world. The visit to this country of the distinguished Orientalist Professor Westergaard, about the time of the publication of the last mentioned volume, gave a powerful impetus to the study of the Zoroastrian literature. Both in Bombay, and at Yezd in Persia, he acquired important manuscripts. I had the pleasure, too, of giving him the use of those which by purchase and gift I had acquired in this place, chiefly from the late able and learned Fardunji Meherasbânji, from whom, I may mention, Professor Rask had obtained his acquisitions. Those manuscripts, when added to those at Copenhagen, Paris, and in England, gave peculiar aids to Professor Westergaard in preparing and editing his successful critical edition of the text of the Zend-Avastâ, for which to him we are so greatly indebted, even in the view of what has been done in the same direction by Dr. Spiegel. The edition of the Vandidâd, Izashnê, and Vispard, in the Gujarâti character and with a Gujarâti translation, lithographed for the Society under my own eye, from a manuscript I procured in Gujarât,has enabled Orientalists to become acquainted with the interpretations of the Avastâ, long current in Western India. Dr. Haug, in his interesting Essays, and other works published in this city, has ably shown how much these interpretations require to be amended. Though it be admitted that the principles of the Zoroastrian faith and curious matters connected with it are now well understood by

[1] *Ibid.* CLXXXVI-CLXXXVIII.

many, much requires to be yet done for the elucidation of the Zend or rather Avastâ language. The analogy or cognate relationship of that language to the Sanskrit, is apparent to every Oriental scholar. From that analogy alone many clauses in the Zoroastrian writings are perfectly intelligible. There are, however, many words in it, which do not appear to be connected with the Sanskrit, at any rate in its classical form. Help to understand their meaning is to be found from the study of the Pehlavi and Persian languages, while the elements of a few of them may be found even in some of the other Iranian, if not Shemitic, and Turanian dialects. I am glad to find such men connected with this Society as my friends Mr. Dhanjibhai and Dastur Peshutan, engaged in studies connected with the ancient literature of Persia. I am so glad to observe that a Zend Madrissa or College has been founded in Bombay by the Jijibhai family. It is an interesting fact connected with it, that it contains some students of the language of the Avastâ, who have laid aside the merely traditional interpretations of that collection, and who are looking for the meaning of its obscure texts by references to the cognate languages and other philological appliances. In this, no doubt, they will get important help from the researches of Dr. Haug.

As observed above, by Dr. Wilson, our Society had at his instance published for the first time lithographed editions of the Gujarati texts and translations of the Vendidad, the Yaçna and Visparad of the Parsis. When he went to Europe in the end of 1842 or the commencement of 1843, he wrote a letter to the Society,[1] resigning his post as the President of the Society. In that letter he announced, that the Vendidâd was already lithographed, and recommended the publication of the Yaçna and the Visparad. The Society at its Special General Meeting of 30th December 1842,[2] resolved to get the Yança and the Visparad also lithographed.

We find from the Proceedings of the monthly meeting of 13th September 1843, that the lithographed copies were for the first time placed on the table of the Society on that day.

It appears, that in those days, the Society permitted papers to be read before it, that were controversial—controversial not only from a literary point of view, but also from a religious point of view. Not only that, but it accepted dedications of that kind of books ; for we find from the above letter of Dr. Wilson, that he presented with it, a copy of his book, which was dedicated to the Society and entitled "The Parsee Religion as contained in the Zend-Avesta and propounded and defended by the Zorastrians of India and Persia, unfolded, refuted and contrasted with Christianity." The book was, as he himself says in the letter, "in

[1] The letter is printed on p. 235 of the 1st vol. and is without date.

[2] The date 30th December shows that the European members of the Society then were very enthusiastic in their work, and met even in the holy week, considering the cause of Literature and Science to be as holy as the cause of religion.

some degree controversial." Dr. Wilson in the following words in the preface, shows its controversial nature and its ulterior object. He says: "May it be extensively instrumental in leading the Parsees to embrace the doctrine of salvation, in quickening the prayers and efforts of Christians on their behalf."[1]

The Society even makes a graceful allusion to this book and its presentation in its address presented to him on his resignation.[2] But, perhaps, there was no danger then of having before the meeting subjects that were controversial from a religious point of view, because the doors of the Society were then closed to native members. Mr. Bal Gungadhar Shastri, a well known Hindu scholar, who then contributed many papers to the Journal of the Society, had only to send his papers to the Society, addressed to the Secretary.

Though such repeated controversial papers and writings of Dr. Wilson had, to a great extent, hurt the feelings of the Parsee community at that time, let it be said now, that it were such controversial writings that aroused the Parsees to stand on their defence, and for that purpose, to study, more closely than before, their own religious books. Khan Bahadur Bomonji Byramji Patel in his article "A Brief Outline of some Controversial Questions that led to the Advancement of the Study of Religious Literature among the Parsis" in the Cama Memorial Volume refers to this subject, and says: "The Parsis felt the emergency of a careful research into their religious literature."[3] He gives a list of several publications among the Parsees that followed the controversies of those days.

Again, let it be said, to the credit of Dr. Wilson, that he was always anxious to help the publication of old oriental works, whether they treated of historical or religious subjects. We know, that when those bitter controversies had, later on, cooled down, in the old age of Dr. Wilson, the Dasturs of the Parsee community, who once had bitter feelings against him, looked to him for support, encouragement and help, in the publication of their works. He, at times, used his personal influence in getting them patronage for their publications from the hands of Government. No member of the Society has, during these last 100 years, taken that prominent part in the work of the Society, both directly and indirectly, which Dr. Wilson had taken.

[1] Preface, p. 17.

[2] *Vide* Journal, B. B., R. A. S., IX, Abstract of Proceedings, p. CLXX.

[3] *Vide* the K. R. Cama Memorial Volume, edited by me, p. 181.

2.—*The Persian language; and its connection with the older Iranian language.*

By J. C. Coyajee, B.A., LL.B.

Darmesteter's theory as to the ultimate sources of the Persian language.

On account of the loss of numerous documents and the conjectural state of our knowledge as to the dates of such as remain to us, it is difficult to trace back with certainty the genealogy of the Persian language. In the absence of a better theory the tentative though brilliant hypothesis of Darmesteter as to the origin of the language is in possession of the field. He was scarcely consistent with himself either in his exposition of, or in his inferences from, the theory ; but his hypothesis may be stated thus. The modern languages of the Iranian countries were represented at the period of the Achamænian Empire by two main stems. Of these the Avestic stem was the language of Media while the old Persian was the language of Parsis. The Eastern dialects of Persia prevailing in our times and chief among them the Pushtu are the descendants of the Avestic stock, whereas Persian and the more western speeches are referred for their ancestry to the language of Parsis. Of the latter the chief representatives are the Gili Kurdic and the Ossetine spoken near the Caucasus.

It is quite probable that this theory gives a correct account of the real succession of historical facts. But our main arguments in support of it must be historical and ethnological. The reasons adduced for the theory by Darmesteter himself do not seem to afford a satisfactory proof of it. In examining Darmesteter's theory and reasons, it is to be remembered that they were brought forward chiefly to support his view that the Achamænian era saw the advent of Zoroaster. This chronology has been strongly assailed by the late Prof. Max Müller and and Dr. Mills, the learned translator of the Gathas. If by collating the philology of the Gathas and the Vedas the former could be carried back some centuries—and this appears very probable—the contemporaneous existence of old Persian and Avesta as sister languages would be upset and with it the theory of the great Frenchman.

The first and chief argument of Darmesteter in support of his view is the presence of the vowel ṛ in the Avesta and its disappearance in old Persian. The assertion is hardly true in its generality. It is true as Darmesteter says that the Zd Kerenaom is represented in old Persian by Akunavam and in that particular form the vowel ṛ is certainly not

to be found ; but then in the participial form of the same verb (karta) the vowel r is present. Moreover Hubschmann is of opinion that the old vowel r was represented in old Persian by an undefined vowel followed by *r*. Dr. Horn adopts this view and adds that it was as late as the 5th century after Christ that the unfixed vowel was changed, after labials to u, after other consonants to i. In the 5th class of verbs the —nu class we find both kar and kan stems used in old Persian.

The second point urged is that the sound sht in Avesta is changed into the sound rt in old Persian. But the presence of parallel forms of the same words employing sht and rt are known to all languages of Persia, to the Avesta as well as to the new Persian. Thus in the Avesta we have two words asha and arta for holiness, and in the modern Persian, a whole class of verbs with root sht, which form their aorist in rd, *e.g.*, کردن aorist کند. The dropping out of the Epenthese and of the aspiration of medials in old Persian language to which Darmesteter has directed attention can be explained by that process of linguistic corrosion simplification in pronunciation which must naturally have happened in the centuries which lie in the interval between the writings of Zoroaster and of Darius. It may also be noted in passing that the acceptance of the theory of Darmesteter of the synchronism of the Avesta and old Persian languages will lead us into another difficulty. If in the 4th or 5th century before Christ these two languages were current in Iran, we must also introduce a third. For Haug infers from the inscription on the Abd Zohar coins that the Pehlvi was also a language in use about the same time. The synchronism of these three languages, to all appearance derived from each other, seems to form almost a *reductio ad absurdum* of some of the theories put forward. Above all Darmesteter's identification of the Median with the Avestic language has not been accepted by the great scholars.

With the rise of the Achamænians, says Dr. Hubschmann, the language of Persia assumed to itself much of the idiom and linguistic equipment of the Median tongue ; and its historical influence on Persia was great. It has been remarked that the old Persian language can be called syntactical, yet there were always many examples of a loose and free construction. Moreover, as time went on, the language of the inscriptions seems to be losing its systematic coherence and falling into irregularities. Thus in the inscriptions of Artaxerxes Memnon and of Ochus the Nominative appears for the Accusative with a qualifying pronoun in the Accusative ; the Accusative in its term assumes the construction of the Genitive. The language lingered on, however, long enough to find a place on the coins of the first of the Arsacidæ (Tolman).

Dr. Geldner enumerates the peculiarities of the old Persian language thus briefly. The Phonetic system of the old Persian is much

simpler than that of Zend, there being twenty-four letters only in the Old Persian. The short vowels e and o are wanting, while in their stead the old a sound appears as in the Sanskrit. As to consonants the old sound z passes into d as in the new Persian; and again the old Persian has no special consonant for representing the sound of l. Final consonants are entirely wanting and in this matter the Old Persian goes far beyond other kindred tongues. The differences of declension between old Persian and Zend are, says the same learned writer, unimportant. This summing up of the sum total of differences between Avesta and Old Persian may well be set up against Darmesteter's efforts to emphasise the difference of the two tongues into the radical antithesis of two items. The mere correspondence of the ten classes of verbs in the two, would show that they were related closely enough to be called, not two separate languages, but separate dialects of the same language spoken at different times.

The slightly different idioms of Western and Eastern Iran may have continued to flourish side by side until they both contributed to form the modern literary language of Persia, retaining a memory of their difference only in the dialects which sprang from them.

Place of the ancient language of Persia in the Indo-European system.

A remark may be made as to the place which these parents of the Persian tongue occupied in the Indo-Germanic group of languages. A glance at the adjoining table of phonetic changes of the Aryan sounds compiled by Prof. Sievers will show the curious fact that in that respect while the Sanskrit language bears very great affinity with the Latin, the Iranian group has the closest affinity with the Lithuanian and Slavonian languages.

Ary.	Sans.	Zend.	Slav.	Lithuan.	Latin.
k_1	c	s	s	sz	c
g_1	j	z	z	zh	g
gh_1	h	z	z	zh	hg
k_2	k, c	kc, kh, sh	k, c	k	g, c
g_2	g, j	g, j, zh	g, zh	gz	g
gh_2	h, gh	g, j, zh	g, zh	gz	h, g

Besides this peculiarity the Zend has got the following characteristics which distinguish it from other Indo-European languages interesting to the student of the old and new Persian languages. The first is the copious use of triphthongs and epenthesis which the corrosive action of pronunciation soon got rid of. Irrational vowels are often used. Sibilant letters are abundant, while the letter l is absent as in old Persian. The verb displays, says Geldner, a copious number of primary forms. There are the same eight cases as in Sanskrit. It was long thought that the Armenian language was of the Iranian group, but the learned Hubschmann has argued that it is an independent member of the family of languages ; and it has been remarked by Prof. Sievers that while its structure and Phonology follow the Asiatic type, it shares the European vowel system.

The Pehlavi.

The antiquity of the Pehlavi language, the immediate predecessor of the new Persian, can be carried back to a remote age. Haug mentions Pehlavi superscriptions on satrap coins struck more than four or five centuries before the Christian era—called the Abd Zohar coins. The next we meet with the language is in its garb of the so called Proto-Pehlavi alphabet on the coin of the Parthian kings. According to Olshausen the language received its name from the Parthians—the Parthas or Pahlavs. It has been thought strange that the Parthian name should have been forgotten in Persia where many old names of less note still linger. But it was forgotten partially only because it began to signify everything belonging to old Persia. Nor is the older form of the name quite lost as we see.

همه یاد شان رزم کاموس بود — زخاقان منشور و فرطوس بود

Firdausi.

One of the most interesting facts about the Pehlavi language is the series of changes through which its Alphabet has passed. On the Parthian coins, we find the Proto-Pehlavi alphabet supplanting the Greek one, which soon fell into a barbarous decay and vanished about 130 B.C. The new Proto-Pehlavi script touched the Aramaic on the one side and the Indo-Bactrian on the other. The Pehlavi inscriptions on the Parthian coins begin with those of Mithridates IV (107 A. D. to 113 A. D.). Next came the Sassanian alphabet, side by side with it however the older Pehlavi alphabet continued to flourish and even to receive an official recognition so much so that the royal inscriptions had to be made bilingual. It would be a mistake to suppose that the so-called "Sassanian" style of Pehlavi began only after the coming in of the dynasty of that name, for the new alphabet is traceable two centuries earlier on the coins of

Sanabares. It may be that the Sassanian alphabet was drawn from the Aramean writings of a later stage ; it may be that it was more prevalent in the West of Persia as the Arsacide Alphabet was in the East. It has also been suggested by Mr. Thomas that the more cursive nature of the Sassanian script had something to do with the different nature of writing material employed. The Arsacide, the Sassanide and even the extraneous Palmyreve alphabet went on being used till by the reign of Shapur II the Sassanide alone survived. Even later was what is called the Parsi alphabet devised in which the four original vowels and half vowels of the older scripts are developed into seventeen vowel signs. The causes of this variation of the script is clear. It was found extremely difficult to use a Semitic alphabet for expressing Aryan sounds. As there is some misunderstanding among Persian grammarians on the point, it ought to be remarked that the sound of 'ain was not foreign to the Iranian languages but can be traced in the Arsacidian alphabet.

The borrowing of a Semitic script and, what was worse, the use of ideograms caused the greatest confusion. As Noldeke says no system was followed in the choice of the Semitic forms adapted. One verb was taken up in the Perfect another in the Imperfect form ; personal pronouns have often been adopted in their dative form ; sometimes the same Semitic sign has to do duty for two distinct Persian words that happened to agree in sound. Different dialects of Semitic languages were simultaneously laid under contribution. Sometimes for the sake of clearness Persian terminations were added to Semitic words. The process of borrowing may have gone on under a long Assyrian regimé and may have been extended by Persians who went to study in the Colleges of Mesopotamia.

The Pehlavi was an Iranian language.

So great was this Semitic influx that some doubted if the Pehlavi was a purely Iranian language. If read as written much of its grammatical texture —and this is the blood and soul of a language, the vocabulary counting for little—would be foreign and Semitic. The arguments of Haug has for ever settled that question in favour of the Iranian origin. In the first place it would have been very strange if the Sassanian kings who were such venerators of antiquity had adopted for their State language what would look like a Semitic jargon. Then again if the Pehlavi was to be read as written, it would be impossible to account for the disappearance of its Semitic element from the new Persian tongue, say as written by Firdausi and Rudaki. In the next place the Pehlavi was not a language which without the help of a national sentiment could have secured acceptance over many other more convenient Semitic alphabets and idioms

which existed in the beginning of the Sassanide epoch. Lastly, the language if read as written would have been equally useless to the Semitic and the Persians as it was illegible to the Semitic. Nor could the Persians have read it without learning five hundred ideograms. Dr. Haug thus ends his account of the rise and nature of the Pehlavi tongue. The language must have arisen during the Assyrian hegemony over Asia, and must have been influenced by the Semitic factions of the day. It was at first divided into two dialects—the Assyrian-Pehlavi and the Chaldaeo-Pehlavi. Ardeshir, the first Sassanide, chose to make the Pehlavi the language of his Empire because that tongue must have contained a great part of the religious literature of Zoroastrianism. This hypothesis of Haug, moreover, has the merit of explaining one peculiarity of the Pehlavi. The Assyrian Pehlavi cannot be traced later than the early Arsacide kings. The Chaldaeo-Pehlavi lived on till the third century when the Sassanian-Pehlavi became the general language of Persia. This Haug's theory of the connection of the Pehlavi with the Assyrian regimé serves two useful purposes. In the first place it shows the great antiquity of the language, since at its rise the Assyrian tongue must have been so much in vogue that no one thought even of writing Pehlavi words in Assyrian alphabet, but Assyrian words were so well-known as to be easily borrowed and understood. In the second place it explains the peculiarity of the Pehlavi syntax in respect of the voice most used, for the Semitic past participles offered the greatest facility for borrowing as they required hardly any knowledge of Assyrian for understanding them.

The Pehlavi as the link between old and new Persian has been called the Middle Persian. The numerous grammatical forms of the Old Persian are lost in the Pehlavi. The noun has only two inflexions, the singular and the plural ; there are no case endings, their place being taken by prepositions. There are no special forms to express gender and the same pronoun *avo* stands for " he" " she" and " it." In respect of verbs we find numerous compound forms.

Dr. Geldner says that in all these respects the evolution of the Pehlavi lies exactly in the direction of modern Persian. It has been remarked by Prof. Browne that the changes which the speech of the Sassanians has undergone are so slight that if a Persian of to-day could be carried back to the days of Ardeshir Babegan he would be able to understand a great deal of what was spoken then ; whereas if one of the Sassanians could have visited the Court of the Achamænians he could hardly have understood a word of what was spoken there. Here we see a remarkable fact of linguistic history—the development of Pehlavi from old Persian in a very short time and the comparative immobility of its anatomical structure even up to the present

day. Even in its integrity the language flourished centuries after the fall of national rule and religion. For a century more Pehlavi legends can be read on Persian coins. The epistles of Manushchithra were written two centuries later; so also was the Gujastak Abalish (an account of a controversy at the court of Mamun) and the Dadastan-i-Dinig. Darmesteter even goes so far as to place the composition of the Bahman Yasht in the 13th or 14th century. For half the time that separates us from the epoch of King Yeztekart the Pehlavi strove gallantly to preserve itself in its integrity, untouched by the idiom of the foreigner. Proscribed from the Court, the Camp, the judicial tribunal, the main portion of the old language still held its own. For it "was doomed to death though fated not to die."

A closer study of the Pehlavi shows the Assyrian influences on the one hand, and a growing Iranian influence on the other, its evolution bringing it nearer and nearer to the new Persian. Even *prima facie* the construction of sentences is Aryan. The nominative comes generally first, then comes the object and lastly the predicate, as in Avesta and New Persian languages. But in all three the verb may sometimes stand in the first place. The genitive is placed before the noun with which it is connected, *e.g.*, malkaû malku. But the construction of sentences has its Semitic side too. The adjectives follow the substantives as in the Semitic languages and with an Izafat. The relative pronoun comes in as a particle to connect not words but whole sentences; it often follows the verb "and with a pronominal suffix referring to the principal word in the preceding sentence." Generally the the particle are Semitic, *e.g.*, لا or آخر. But some are purely Iranian *e.g.*, those corresponding to Persian چگونه and بیرون.

The Iranian Adverbs are very few and Haug doubts whether "aitun" is one of them. The prepositions, too, are mostly Semitic. But there are a few Iranian ones *e.g.*, javit (cf. New Persian juda) and rai (New Persian ra) which is a postposition. It is noteworthy as illustrating the curious nature of the language that while the earlier cardinal numerals are Semitic (*e.g.*, ahdi, khamsa, &c.) the ordinal numerals are Iranians. Thus Nazdishta (first), Degar (second), Sadigar (third). Distributives are made as in new Persian by addition of kanee (new Pers. گانه ganeh) and so multiplicatives by the addition of tak (New Pers. ta).

The commonest verbs are all of Semitic origin as i
their terminations un and itun. As for these endin
the former to be the 3rd person plural masculine o
tense and the latter to be the 2nd person plural i
tense. Iranian verbs are but rarely used on the

in the shape of past participles. The Semitic verbs are borrowed in modified forms, "sometimes the passive participles, and partly in third persons of the second tense but in either case always in the plural." Moreover not only are the verbs thus derived from Semitic sources, but Iranian terminations are quite wanting to them in the earlier inscriptions. Later on, however, the terminations began to be added on. Even then the confused assortment of Assyrian verbs was not parted with; they had been picked up at random; the Assyrian aorists, past participles, and various other forms of verbs were used indiscriminately, only to express the verbal idea. For expressing the moods the Pehlavi employed the Semitic auxiliary verb "human."

Coming now to the pronouns we find them in the earlier inscriptions entirely Semitic, even as to the suffixed pronouns. But in the later Sassanian epoch they are changed for Iranian ones. This Persianising process can be further traced in the pronouns joined to the particle ap and other particles which, being first Semitic, later become Iranian. The same Iranian element can be traced in cases. The Accusative case is formed by adding the termination rai, as we form in new Persian by adding "ra." The Dative takes on the particle ul read as "oi" by the Parsis. It may be connected with the Zend particle "avu" and the new Persian "be." It is from the Semitic side of Pehlavi that the new Persian language has got the mode of forming a genitive with an Izafat. The Plural was formed in the Pehlavi as in new Persian by adding "an" which was a remnant of the old Persian and Zend Genitive Plural ending "anam." However the other new Persian mode of forming the plural by adding "ha" was gradually being evolved in the Pehlavi which added "iha." Gradually this formation which was at first confined to the formation of plurals of inanimate objects has become general. Thus we find in Kaani

چکاوها کلنگها تزروها هزارها

In another matter, too, we may trace how the Semitic element in the Pehlavi was being eliminated gradually. Comparing Pehlavi works of different epochs we find that the later books like the Karnamah contain less of the Semitic element than the earlier like the Minokherad. The Pehlavi translations of the Avesta contain even a smaller proportion of a foreign element. In fact one of the causes which gave rise to the Persianising tendency in Pehlavi must have been the increasingly closer study of the Avesta texts with their pure Iranian idiom. As we find in English literature the effect of the recognised version of the Bible in forming a simple style and idiom, even so it must have been; and indeed the influence of the Avesta must have been even greater; for it was read in the original and occu-

pied a far greater amount of the intellectual activity of old Persia on account of the paucity of books.

Indeed, as spoken, the Pehlavi must have sounded very much like the new Persian, for the present seeming difference of pronunciation may be due to our ignorance of the exact phonetic value of some of the letters and the ambiguity of others.

Early stages of modern Persian.

Coming down to the new Persian language, we would fain catch glimpses of what it was like in the earlier century after the Arab conquest. But the greatest part of such literature as was then written in the midst of continuous wars has perished. How much discouragement was caused by the cataclysm of Arabian invasion and the later wars we can see from what Firdausi says four centuries later of his own hesitation to undertake any literary work of magnitude, for

زمانه سرائی پر از جنگ بود
به جویندگان بر جهان تنگ بود

There was a large literature of ballads sung by itinerant bards, but that has perished ; but we have left to us a commentary on the Koran, for the theology of the new faith must have employed the pens of many converts. Professor Browne has noted the peculiarities in the style and language of the book in J. R. A. S. for 1894. The first thing one remarks is the unsetted state of the spelling. The word khurram was spelt as خوزم and سخن as سخون and طشت as طست ; the letters ض and ظ ط and ت , ش and س were often used as random substitutes for each other ; thus ستبر was written for سطبر and طلخ for تلخ. Many compounds were used to do the work which single letters do now. Thus دم was written as دمنم or دنب and سم as سنب and شکم as شکنب. This fact must be due to the new Arabian script which unsettled the old spelling. We naturally meet with many words now obsolete, like وممیه a temple, یله کردن to abandon, کش handsome. The formation of abstract nouns had several modes in that time which have been abandoned. One was by adding the ا alif : thus درازا length, روشنا illumination and some others. The fashion lingers with us in a few words as پهنا and بالا. For indicating indirect relationship there was a particular suffix thus step daughter is دختندر and mother-in-law is مادراندر. Adjectival terminations were used

somewhat irregularly. Thus the sense of the adjective "arboraceous' was expressed by the strange word درختناک ; at present we add the suffix ناک only to abstract nouns. It is noteworthy that even تر an adjectival suffix which denotes the comparative degree was then placed after nouns,—thus انبوه‌تر. In syntax, also this antiquated form of new Persian had several peculiarities. Thus the particle به is used in addition to the particle می as مامی‌بترسیم; whereas in our times either of them must stand alone. But the main changes are to be noted in the forms of verbs employed. We do not use the Pluperfect of the verb بودن to be but بوده‌بود seems to be a form freely employed in those days. Compound verbs were also formed in those times from past participles and auxiliary verbs. Thus

مراوزا ازبلا ازموده نه کرده

It is to be noted that though with us the 2nd person plural past subjunctive is identical in form with the simple past, these two tenses are kept apart in the old book. Thus we would say اگر نکردی for "If you had not done so," but the commentary uses a slightly different form اگر نکردیی.

From another source (Dr. Theodor Nöldeke's Persische Studien) we learn how Diminutive forms of names of persons were formed in those early days. The most common way was to shorten the name arbitrarily and to add the letters ویه. Thus جوانشیر was called جوانویه, شاه‌مردان was فرویه, فرخزاد was دانویه, دانشمند was شاهویه, نامدار was نامویه. The same process was applied to Arabian and Jewish names. We get ابرویه for the name ابراهیم, حمدویه for احمد, اسمعیل for سمویه, جبرئیل for جبرویه. In the last two names we remark that for making the abbreviation more handy the initial *alif* is dropped.

A similar form (ai) can be shown to be used in old Persian. In Herodotus we find the name Tithaios as a shortened form of the name Tithraustes ; and in Ktesias we find the name Artawardiya contracted into Artaios. This process of abbreviation we find lingering in Kurdistan where the names Osman and Husain are shortened into Osey and Husey.

Another way in which the same purpose of contraction of names of persons is served, is the addition of the letter ک ; the name شهریار

is contracted into شهرک ; and اورمزد into مزدک. It may be that the name ارتک or Arsaces may be a contraction of Arsames or Arsamenes. In the historian Curtius we find the name Sataces, which in all likelihood is derived from the name Satibarzanes. This termination, too, thus goes back into great antiquity and is used in the Karnamah. But it was used also in modern times ; and the Arabic name عبدالله was thus made into عبدک.

When we come to the study of the modern Persian language, the two salient points for our purpose are the historical grammar of the language and the history of phonetic changes. As of the former the leading authority is the brilliant James Darmesteter whose "Historical Grammar of the Persian Language" is the text book of the subject and a mine of learning ; as to the latter the greatest amount of work has been done by the learned Dr. Hubschmann.

Historical Grammar of the Persian Language.

In the study of the evolution of the grammatical forms of the Persian language naturally the verb presents the most complicated and interesting phenomena. Darmesteter thinks that the terminations of the verbal conjugations in Persian are chosen—by what system we do not know—from the conjugations of the old verbs of the a and ya class and from the endings of the causal forms of verbs. As to the modes of the conjugations of the Persian verbs which must depend on the root endings, we have preserved the methods of four of the old classes, the a class, the ya class, the verbs of the nu particular syllable class, the na class and a class of verbs obtained by redoubling some

(*a*) Of the first class the verb بودن, (aorist بود which represents the old Persian Butanaiy (ao. bavat).

(*b*) Of the verbs which have borrowed terminations from the old causal form we would take as a representative the verb سرودن to chant. Its aorist is سراید which comes from the form sravayati which is an Avestan causal form from the root Sru.

(*c*) Verbs of the ya class. This class is divided into two subdivisions. The first form is with the endings a—ay and the second with the endings u—ay. An example of the first class is زادن (aorist زاید, coming from záta (born) which has also the form zayaonte.

(*d*) The reduplicated verbs are represented by the verb دادن of which the origin is the infinitive Dâtaniy. The aorist in Persian is

دهد which represents the old form dadati. The second a in the old taoris has been worn away by the action of pronunciation and has been replaced by h.

(*e*) The nu class is illustrated in the verb کردن (Ap Kartaniy) with its aorist کند (from the form Kunauti) (*f*).

The na class survives in such verbs as افریدن, دانیدن, and ستادن.

It seems necessary here to explain the cases in which the aorist and other forms are not derived directly from the verb and thus present an anomalous appearance. Thus some verbs seem to possess a variable vowel, *e.g.*, the aorist of مردن is میرد. The explanation is that while the infinitive is derived from the infinitive mar-tanaiy, the aorist is obtained from the peculiar form mirya. Another anomalous case is the verb دیدن with its aorist بیند. The infinitive in this case comes from the old Persian root di to see, the aorist from the Zend term vaen. In the same way the infinitive امدن can be traced to the form ágna tana, while the aorist اید is from the root i to come. It has also been noted as strange that the infinitive اراستن should have ارایه for its aorist form. The fact, however, is that the verb comes from the root rad to arrange ; the last consonant of this root has been worn away and been replaced by a vowel. That verbs like گشتن and هشتن should have words like گردد and هلد for their conjugations cannot seem strange if we remember that the sounds sh and rd are interchangeable in all Iranian languages. Darmesteter has also noted a really irregular class of verbs exemplified in the infinitives بیستن, زیستن, توانستن, &c. He explains that these verbs are really compounds in which the syllable ست denotes the compressed existence within them of the verb denoting "to be" and all of them can be translated as "to be fitting", "to be living", "to be able, &c."

Of verbal prefixes the most important are به (as in بکند he may do) and می which shows the continuous tense. Darmesteter thinks the first is derived from بی without, as separating subjective motive from objective action ; the second is from Zend hamatha continuously, as showing continuous action.

The formation of the future tense was done in old Persian by using the indicative or subjunctive mood except in the form باش which is even now a distinct form of the verb to indicate the future. In Pehlavi

the Future was formed by the aorist preceded by the particle به. This fashion also lingers in Persian to a small extent.

The passive voice was formed in Pehlavi in two ways. First by adding a verb like ah to be or some other verb with the same meaning to an ordinary verb, secondly by such forms of ordinary verbs as Yemalulunihit (it is said). The last syllable "it" West has traced to the Huzoaresh shape of the verb ist است. This second form has disappeared in Persian, which, however, returns the first form using for its formation the verb شدن to be.

The causal form of verbs is formed in Persian by adding the syllable "an" to the imperative and then supplying the infinitive termination. Thus سوختن is to burn سوزانیدن means to procure to be burnt. This addition of the syllable "an" for this purpose is derived from the Pehlavi way of using the particle "in" in the same way. The Pehlavi, however, formed in similar way causal verbs by treating nouns in the same way. Thus pim is milk, pim-in-itan means to suckle.

Another interesting point is the formation of degrees in adjectives. In old Persian "yah" was added to obtain the comparative and "ist" for the superlative. Relics of this very old mode of forming the comparative are the words کم and به and of the old superlative are the words نخست and بهشت. In the Pehlavi the comparative is formed by adding the syllable تر. In that language this syllable was added not only to adjectives, but to adverbs and to nouns denoting time. The Pehlavi formed the superlative by the addition of the syllable "tum" as we and modern Persian use "ترین." In this last suffix Bopp sees an analogy to the Greek suffix ion and Sanskrit "iyans." But Darmesteter thinks that ترین is essentially a modern suffix derived by adding to the suffix تر the suffix ین which has an adjectival significance as we find in بر high, برین very high.

As to prepositions in New Persian, most of them are derived from the two older languages as از from hachá, اندر from antar, میان from "maidhyana," the middle part بهر from "bádhra" a part. These last two as well as the preposition نزد are new in the prepositional sense. There are also prepositions got by compounding other prepositions. زبر is made up of از and بر ; زیر of از and er, cf. Zend "adhairyat" under.

Lastly some of the Persian conjunctions deserve a consideration. The word هرگز is derived from "hakarchi" which is a doublet of our word اگرچه. The syllable "kar" in "hakarchi" is the same the similar syllable in دیگر second. Hence "hakarchi" means "once" and came to be used in the sense of "never more." The conjunction مگر is a compound of ma (a negative particle) and اگر. The conjunctions چو and چون go back to the forms "chu" and "chi." The latter still lingers in the interrogative pronoun. ایرا چه is another conjunction of a compound nature, being made up of "e" (a demonstrative pronoun) and the preposition .

Phonetic changes.

Coming to the study of the Phonetic changes which the letters of the old Persian languages have undergone in the new, it seems best to pick out only a few of the letters as examples and to show how they have altered. Dr. Hubschmann's work must be the source of all further study on this subject, supplemented by Dr. Horn's treatment in the Grundriss.

The old Persian letter D has gone through various vicissitudes. In some places it has changed into h. Thus the word مهر a seal is from the form "mudra" and نای a reed comes from "nada" and شهریار from "shatradar." It has sometimes changed into l. Thus ملخ a grasshopper comes from Zend "madakha." The letter has sometimes disappeared in certain places. One word نشیمن a nest comes from old Persian Nishidman.

Old Persian t. :—It has changed sometimes into y or i as پیراهن which is derived from "patrahan" and پیکار from "patikar"; پیمان from "patman." It is often changed into the letter d in some cases as in پدر and مادر. It has disappeared where it occurred formerly in the combination khtr. Thus بلخ comes from "Bakhtra."

Old Persian F. :—It has changed into h, *e.g.*, the words کوه mountain comes from "kof" and دهان from Zend "zafan."

Old Persian Va :—It has occasionally turned into g, *e. g.*. گراز a boar (from Zend varaza) and گرز a mace (from vazra). It can also be traced into the form "bu" as in بن a tree (from pazand van). The letter drops out sometimes as in گریبان from Pehlavi grivpan, collar. The first transformation had begun even in Pehlavi.

The transposition of vowels.—This is very noticeable in some cases. Thus, one group consists of such words as سرخ (from Pehl. sukhra) چرخ wheel (from chakhra). Another forms a set of words like برف ice (from vafra) ژرف deep (from zhafra). گرز a mace comes by a similar process from vazra ; نرم soft from namra ; and مغز brain from mazgha.

Sometimes both the old and new phonetic forms of words are used in Modern Persian ; such words bear a fallacious appearance of being synonyms of each other, whereas they are realiy identical. Thus گل and ورد.

Dialects.

An account of the Persian language would be imperfect without some treatment of its dialects. They seem to have possessed considerable vitality for neither the prevalence of the Old Persian in the Achamænian era nor of Pehlavi throughout the Sassanian times, nor again the regimé of the modern Persian for the last thousand years has succeeded in depriving them of their local currency. Dr. Geiger who has written with most authority on the subject thinks that the dialect spoken in Afghanistan, Baluchistan and the Pamirs are the last remains of the Median tongue, which, he thinks, was the child of the Avesta language. Of this there are many indications. Thus in Persian the word دیگر means "second." The Avesta has the form Bitya.

The Pushtu uses the word "bal" and the other dialects have "abi"; it is obvious that these latter forms are derived from the Avesta word. The vocabularies of all dialects have much to distinguish them from that of Persian. Thus "to fall" is expressed in old Persian by "ud pa ta tá", in new Persian افتادن on the other hand in the dialects that idea is expressed by the words "kaf," "kapag" in Baluchi and by the word "kaf" in the Northern dialect of Gilan. As the Philistines could not pronounce the word Shibboleth so the sound of "sh" is generally absent in the Persian dialects. Many dialects have softened the letter t when it comes between vowels. Persian words شدن and دادن become in Kurdistan dialects "shuin" and "dain." It is noteworthy also that the oblique case lingers in some of the dialects.

Taking the Eastern dialects first, that among them the Baluchi resembles the Pehlavi in some respects, most especially in retaining the sharp letters k, t, p intact and not softening them into g, d, b. As to the Afghan and the Pamir dialects they resemble each other much. A noteworthy feature about them is that they retain separate terminations for masculine and feminine genders, which the other

dialects have lost. But while in the Afghan there has been a large borrowing from Indian linguistic sources, the Pamiri has adopted much from the Turkish language. The Pamir dialects are in their turn divided into the Eastern and Western groups, of which the latter seems to have been most influenced by the Persian language and literature and has consequently taken on some Persian peculiarities, *e. g.*, the double method of forming plurals with the suffixes "an" and "ha" and the use of the Izafat to form the genitive case with. Of all the Persian dialects, it has been said, the Pushto and the Pamiri are the farthest off from modern Persian.

The dialects of the North or Caspian dialects comprise the Tat in the West, the Gilaki in the Centre and the Samnani and Mazenderani in the East. The last is the best known and has produced writers of eminence, such as Baba Tahir, Talib and Amir Pazvari. Dorn in his "Caspia" thinks that the Tat spoken in Baku is the language of the descendants of men who were placed there by the Sassanian kings to guard the defiles of the Caucasus. The Gilis who speak the Gilaki dialect are also first heard of in the wars of Shapur II. The Samnani is a particularly difficult dialect, as the late Shah Nasiruddin remarked, because those who speak it are a a mixed race of men from many frontier districts of the North.

The dialects of the West, *i.e.*, those of Kurdistan, contain a good deal of words borrowed from the Arabic and Turkish languages. The Arabic words have been borrowed through the Persian and Turkish languages and besides have been modified in their introduction. Thus the Arabic word خبيث has been borrowed in the form "Kebit." A curious phonetic change of these dialects is that of the letter "m" into "w". Thus the word چشم is pronounced as chashwo. Of those Western dialects the Luri shows signs of great antiquity.

Of the Southern dialects the Dari is the most noteworthy. Dr. Geiger thinks that it shows signs of great antiquity in keeping up the sound groups ft and rt which the other dialects have softened. It has also retained the original dental letter at the end of words, while the new Persian has lost it. Thus, for Persian words موی and نای the Dari has "mud" and "nad."

Commerce of words.

The commerce of words between the European languages and the old and new Persian languages presents many points of interest.* The English word Bezoar is traced to Persian پازهر. The German word Tasse (cup) is from Persian طشت. The words Borax, Taffet,

* To Dr. Horn we are indebted for a pretty complete account of these borrowings.

Serail, among others have a similar origin. The French word Levanti is traced to Persian لوند and chicane to چوگان. De La Gardi thinks that the word carquois (quiver) comes from Persian ترکش. Noldeke is of opinion that the word Absinth has also a Persian origin. More doubtful is the etymology of the word "Balcony". بالاخانه has been proposed as the origin. But I would suggest the word پالکانه as the root; Kamal Ismail has the word

ترسم زپالکانه دیده برون جهد — این چند قطره خون که محل وفای تست

and Kaki says

مشبکات روان سپهر پیروزه — زپالکانه ایوان نست پنجرهٔ

It is to be noted that the word بلکن (top of a wall) has a right to be considered in this connection. The word has been often used in good literature. Thus Zain-ud-Din Sanjari says :

ای عهد توبی مدار و پیمانت سست — چون برف تموز و افتاب بلکن

Turning to the other side of the account we note a number of words borrowed from Greek in Ante-Mahommedan times, among them are دیهیم (diadema), درم (drachme). سکوبا and اسقف (episcopos), پیاله (phiale), لکن (lachane), کالبد (chalopodion), کلید (chleida), لنگر (anchura), نرگس (narcissus), الماس (adamas) and سیم silver (Asemos).

Many classical words have also been introduced through Arabic. Thus قانون rule, طریاق antidote, بربط hart, قلم pen, بلور crystal, and بوق the trumpet.

Particularly interesting are the words relating to Christian ecclesiastical matters; most of them have been borrowed from the Aramaic. Among others are مسیحا (Messiah), چلیپا (the cross), کنشت (the synagogue), قسیس (a Christian priest) and گنبد (the Church dome).

The persistency of the Aryan Type.

Even in such a brief review of the new Persian language of its connection with the older languages of Persia, one fact cannot fail to stand forth in prominent relief. It is that the language of Persia in spite of all foreign incursions and influences has remained essentially an Aryan tongue. We have seen how the Pehlavi burdened as it was with an influx of Assyrian words and confined within an

Assyrian script has been successful in retaining and developing the fundamentally Aryan nature which it had inherited from the language of Achamænian Persia, which language too in its turn must have had a great struggle for existence with the Mesopotamian languages in their pride of place and Empire. Later on we may be sure that the advent of the Parthians from the plains of the Orus and the Jaxartes must have brought with it a great crowd of Turanian words ; and the problem of eliminating these was solved, though we know not how, in the centuries which lie between the era of Arsaces and that of Ardeshir Babegan. The Arabian conquest brought with it another foreign script and a new and conquering idiom. For a time the prospects of the Persian language seemed dark indeed, as the foreign element seemed for a moment to get the upper hand, and Firdausi thus laments the misfortune of his people.

نه دهقان نه ترک و نه تازی بود — سخنها به کردار بازی بود

But owing to the transcendent merits of a host of great writers, from Firdausi and Rudaki to Jami, the idiom of old Persia continued to keep its hold on the nation ; and even now the reaction against foreign fashions in speech keeps growing. The Persian language has thus kept up its peculiar genius, unconsciously as to the past ; but as time goes on and Persia studies its antiquity and history it will cherish that genius consciously in the future.

It must be remembered, however, that the term "Natural History" includes several branches of knowledge, more or less intimately and nearly related to each other. Thus, for instance, there is the Inorganic World, exhibiting no life. It embraces Geology and Mineralogy. Secondly, there is the study of objects in the Organic World, exhibiting life. It embraces the Science of Biology, which includes Botany and Zoology. Biology teaches the essential *phenomenon* of *Vitality*.

If one were to ask me to-day what is meant by "Life," I cannot express it better than in the words of Herbert Spencer. Vitality, says he, is the continuous adjustment of *internal* relations to *external* relations; and Life, in its *effect*, is the totality of the functions of a living thing.

It must be mentioned here that Palæontology, which is sub-divided into Palæo-Botany and Palæo-Zoology, deals with the forms of life which *have* existed from the earliest periods of the Earth's history down to our own times. Palæontology, strictly speaking, has only an indirect relation with Geology; it is essentially a part and parcel of Biology. Thus, Biology, speaking comprehensively, deals with *living* as well as *dead* objects. It thus includes a considerably wider field than that formerly assigned to Natural History by previous workers.

There is further, in our own day, a branch of Biology, which is known as the *Science of Evolution*. It does not deal with a living object as an *Individual*. It investigates the origin and life-history of those *Groups* of similar individuals which constitute what are known as *Species* or *Kinds* of animals. The term *Evolution* has come into existence, mainly since the days of the great French Naturalist Lamarck. In 1859 Charles Darwin published his epoch-making work, named the "Origin of Species," wherein, for the first time, he gave a methodical, scientific explanation of the manner in which the *principle* of "Evolution," previously suggested by his illustrious grandfather, Erasmus Darwin, by Lamarck and by others, *might operate in the production of species*. This explanation Charles Darwin further elaborated in his "Theory of Natural Selection." It must be noted here that simultaneously with Darwin's "Origin of Species," Mr. Alfred Russell Wallace gave to the scientific world his views on the origin of species, in an independent work, named "The Tendency of Varieties to depart indefinitely from the Original Type."

Although the theory of "Evolution" does not form any part of this paper, remembering, as I do, the bare historical, and by no means the controversial nature of my task, I feel bound to place before you, as briefly and succinctly as I possibly can, an account of the two leading

or fundamental doctrines of all the various, and at times conflicting, theories as to the origin of species. I cannot do so better than in the words of Mr. H. A. Nicholson. "Almost all scientific men," says Nicholson, "are at the present day agreed that *species* have been produced by a process of evolution or development, *though all are not agreed as to the manner in which that evolution has been carried out.*

The first leading theory is known as the "Doctrine of the Fixity of Species." This theory inculcates that "species are essentially *fixed* and *immutable.*" This view was generally held up to the middle of the Nineteenth Century. Closely connected with the belief in the immutability of the species is the belief in their *Special Creation.* "A most masterly view," say Hooker and Thomson,* "of the present state of the question will be found in Sir C. Lyell's '*Principles of Geology*,' where the arguments of Lamarck and others, are stated with great fairness, and answered by the author, whose opinion is decidedly in favour of species being *definite creations.*"

The second leading theory in connection with the Doctrine of Evolution may be described as that of the "*Mutability of Species.*" "At the present day," says Nicholson, "it may be said that Naturalists *generally*, if not *universally*, have abandoned the belief in the fixity of species, and in the doctrine of 'Special Creation.'" It is now *generally* admitted that species are not permanent and immutable, but that they "undergo modification, and that the existing forms of life are descendants, *by true generation*, of pre-existing forms."

Having thus far given an account of the existing state of knowledge now available to students of Natural History, I now turn to the subject of the actual gain India has been fortunate to secure by the progress of science in Europe and in America. Before doing so, I must again refer to the Inaugural Discourse of Sir James Mackintosh already mentioned. In alluding to the state of Botanical study in his day, he says thus: "The higher parts of the Science, the structure, the functions, the habits of vegetables—all subjects connected with the first of physical sciences, though unfortunately, the most dark and difficult,—the philosophy of life,—have in general been too much sacrificed to objects of value, indeed, but of a value far inferior, and *professed botanists* have usually contented themselves with observing enough of plants to give them a name in their scientific language and a place in their artificial arrangement." The main reason of this circumstance, so complained of by Sir James Mackintosh, is, that *in his day*, and *even* till now, the sole workers in Indian Botany and Zoology were for a long series of years among men who had other legitimate occupations of their own. Their pursuits in Botany or Zoology formed

* Introduction, "Flora Indica," p. 20, 1855.

a part of their amusement or recreation—a sheer labour of love and not a part of their official duties.

The study of the forms and structure of plants and animals means an ample and ready supply of appliances, such as microscopes and the requisite paraphernalia. It also means a Laboratory to work in. It also means a Repository for the storage and care of the objects and achievements of any particular line of research. *These were not then, in the days of Mackintosh*, nor *have been for years* even until recently, within the reach of amateur or systematically working naturalists.

It is true that Botany and Zoology are best studied in the field and in the forest. The terrestrial plants and animals have to be found in their natural homes and haunts. The fresh-water and salt-water plants and animals have to be studied in ponds and ditches, in tanks or lakes ; or in suitable aquaria ; or on the surface or shores of the sea, or among the deep-lying denizens in sub-marine regions, where neither light nor sound can ever penetrate, and where food can only be gathered by special contrivances of Nature for the protection of life.

But there is yet another place for terrestrial and aquatic plants to study in, and that is the "GARDEN ;" there is yet another resort where animals can be studied and that is the "MENAGERIE." For the study of marine and fresh-water plants, a suitable aquarium is indispensably necessary. There is none such in all India.

"GARDENING" is now all over the world (New and Old) an independent and profitable science. It has not only steadily improved the product of flowers, fruit, and seed in quality and quantity, but it has also produced innumerable *Hybrids*, yielding plants and flowers, rich in the beauty of their gorgeous colours, and varied in their phantastic forms.

"HYBRIDIZATION" is now a distinct branch of scientific gardening, affording a rich field for the skill and energy of gardeners in the civilized parts of Europe and America. It did not exist in the days of Sir James Mackintosh. It is assumed by continental botanists that hybrids do occur in nature ; for instance, we have heard of the hybrid Gentians of the Jura, and of the hybrid Thistles in Germany. Indian botanists have to bear in mind the possibility of the occurrence of hybrids in nature, though Wallich, Griffiths, Roxburgh, Jack, Wight, and Gardner (of Ceylon) have never found them. Nor have Sir Joseph Hooker and Dr. Thomson come across any hybrids, *in nature*, throughout their extensive wanderings on the heights of the Himalayan Mountains. The subject of Hybridization, however, is well worthy of the study of future Indian botanists. Not so much in the

field or forest, as in our gardens, *is the study of hybrids, and the artificial production of them*, full of promise in profit as well as pleasure.

With regard to the influence, which a well-arranged and well-regulated garden may exercise on the study of botany, I may state that the most distinguishing work of some of our best Indian botanists was accomplished while in charge of such beautifully organized Government gardens as those of Calcutta and Saharanpur. Thus, for instance, Dr. William Roxburgh, who is styled the "Indian Linnæus," was in charge of the Calcutta Botanic Gardens of Sibpur from 1793 to 1814. It was from these that he gave to the world his "Flora of India," which is marvellous for its accuracy and extensive observation. The same was the case with Wallich, Griffiths, and Dr. Thomson. They were able to study plant-life at first-hand, not from bare herbaria, but from living specimens. No wonder that their works contain reliable knowledge as *gathered direct from Nature*. Coming nearer home, we have several instances well worthy of special remark. There is the instance of Sir George Birdwood. When as "*Dr. George Birdwood*," he started the present Victoria Gardens at Byculla, and worked as the Secretary of the Agri-Horticultural Society of Western India, he had ample opportunities of studying plant-life, and of collecting numerous vegetable products of the Bombay Presidency. As Secretary and Curator of the Government Central Museum of Bombay, which is now the Victoria and Albert Museum, he was able to make a collection of the drugs sold in the Bombay bazars, as also in the bazars of Western India. The result of his labours was a Catalogue of the Vegetable Products of the Bombay Presidency, published in 1865. The great merit of Sir George Birdwood's writings is that he is full of the old historic accounts of the plants he treats of. So useful and satisfactory was his Catalogue found to be that, within a few months of its publication, a Second Edition was called for. But it is not on this work that Dr. George Birdwood's reputation is solely based. It is his all-important work in the Victoria Gardens that has made his name immortal in Bombay, as will be seen from the following remarks made by Dr. Herbert Giraud in a letter of reply* to the Address unanimously voted to Dr. Giraud on his resigning the Vice-Presidentship of the Agri-Horticultural Society of Western India, with which he was connected for twenty-three years. Dr. Giraud's remarks run thus :—"In now offering the Society my grateful thanks for their Address, I cannot refrain from expressing my feeling that the very small services I

* *Vide* pp. 20 and 21, Report of the Agri-Horticultural Society of Western India for the year 1865, kindly lent by Mr. C. D. Mahaluxmivala. Dr. Giraud's reply from Malta is dated 5th December 1865.

have at any time rendered have been greatly over-estimated ; for when I look back upon the combined labours of my late lamented friend Dr. Buist and myself in restoring (in 1843) the Sewree Garden from the dilapidation into which it had fallen, and compare them with what Dr. Birdwood has, single-handed, effected at the Mount Estate, our work shrinks into utter insignificance. It is true that at Sewree we had to contend against so inadequate a depth of soil, and so insignificant a supply of water, that we had the mortification of seeing the commonest indigenous plants, as well as the most precious exotics, perish in spite of all our care. Moreover, the distance of the garden from the residences of members was so great that it was impossible for any sustained interest to be taken in them. These circumstances had for many years impressed me with the necessity of finding for the Society's garden a locality free from all these disadvantages ; and when I was appointed to Sir George Clerk's Staff, I took every opportunity of urging upon the Governor the advisability of the removal of the garden to the Mount Estate, which his Government so generously made over to the Society. The gift would, however, have been of little use, had it not fortunately happened that in Dr. Birdwood the Society had a Secretary possessed of a very rare combination of qualifications for the establishment and superintendence of a Horticultural Garden. It is seldom indeed that extensive and accurate botanical knowledge, refined taste in landscape-gardening, and indomitable energy are found in a single individual. To these qualifications in our Secretary we owe it, that the Estate, in many parts so unpromising, has been brought under tasteful cultivation ; that roads have been made, and the soil drained ; that a larger number of exotic plants have been imported into, and acclimatized in Bombay, than had been introduced in the previous quarter of a century ; and the operations of the Society in the supply and interchange of plants have been more extended than at any previous period. But I am more particularly desirous of placing on record some acknowledgment of the tact and perseverance with which Dr. Birdwood took advantage of the opportunity afforded by the abundant wealth which flowed into Bombay in 1863-64 to adorn the garden with works of art of which any city in the world might be proud—an opportunity which may perhaps never recur, and which, having been taken advantage of by our Secretary, has taught many of our fellow-citizens *how nobly superfluous wealth may be expended, and how to leave such records to future generations, as shall prove that the madness of speculation in those memorable years did not make men wholly selfish, nor dead to what is beautiful and useful.* If the operations of the Society thus, so successfully commenced by Dr. Birdwood, be but carried forward with the same energy and knowledge, the Victoria

Gardens, with the Museum and the Professor of Economic Science, will become a practical School of Natural Science, of great public utility and of immense advantage to our educational establishments." Were it not for the historical importance of these remarks, I should not have troubled you with such an extensive quotation. But, to my regret, I must add that till this day there is no Professor of Economic Science in any of our Government Colleges. When, subsequently, Dr. Birdwood was transferred to the India Office, his energies found a wider scope for his varied talent and exquisite scientific acquirements. What was Bombay's loss then was afterwards the gain of the India Office. When, a few years ago, Dr. Birdwood retired from the Imperial Service, he was honoured with a Knighthood of the Indian Empire. He is living to this day, and may he live yet longer for many years to come! It falls to the lot of very few men to display such varied talent and energy to the use and happiness of mankind.

A few years after the departure of Sir George Birdwood from Bombay, the superintendence of the Victoria Gardens and of the Victoria and Albert Museum fell to the lot of Dr. Wellington Gray. What has been said of Sir George Birdwood in the foregoing remarks may be said of Dr. Wellington Gray with equal truth. For, says Mr. Herbert M. Birdwood, "Dr. Wellington Gray was a most enthusiastic searcher after plants, to whom *we in Bombay* are indebted for some of the loveliest of our garden-plants, introduced by him during a long series of years." Dr. Wellington Gray, I may add, improved and adorned the Grant Medical College Gardens, and introduced numerous exotics, while he was Professor of Botany in the Grant Medical College. He has, besides, contributed to the Botanic Volume of the *Bombay Gazetteer* an ably drawn up Survey of the Botany of Western India. Dr. Lisboa's botanical work is also to be found there. Dr. Lisboa's arrangement is after Sir George Birdwood's. It contains much new and useful matter. In passing, I may also say here that Mr. Herbert M. Birdwood laid out the Bombay University Gardens with untiring energy, artistic taste, and an unsurpassed knowledge of Indian and exotic plants. The University Gardens are, as seen now, a living monument of his skill, industry and taste. I feel sure that the rising generation, nay, the future generations, of scholars studying botany in the Bombay University will profit themselves by Mr. Birdwood's labour of love, and ever remember him with feelings of profound gratefulness. The late Mr. Gustav Carstensen followed Dr
ton Gray, and contributed several interesting botanical
Journal of the Bombay Natural History Society. He
great grief of botanical students. Mr. C. D. Mahal
in charge of the Victoria Botanical Gardens of By

shed M. Doctor in charge of the Zoological Department. Their untiring labours have considerably improved the Gardens. I must mention here the work done by Mr. George Marshall Woodrow in Scientific Gardening. He came out originally from the Kew Gardens to lay out and manage the Government House Gardens at Ganesh Khind in Poona. He was for a long series of years Lecturer on Botany and Agriculture in the Poona College of Science, where also he planned and managed a garden in the Science College grounds. He materially helped Dr. Theodore Cooke, Honorary Director of the Botanical Survey of Western India, as Dr. Cooke's Assistant. Mr. Woodrow has recently brought out a third edition of his work on Gardening, which has a special interest to all horticulturists in the Bombay Presidency. Mr. Woodrow has now retired from the Educational Service to his home in Glasgow. While enjoying his long-sought rest, after much arduous work, he has not been idle, for only four months ago I received from him an excellent monograph on mango-culture. He has contributed, from time to time, several papers embodying much original matter to the Journals of the Bombay Natural History Society. He has all along been Dr. Cooke's right-hand man, and as such he has done a yeoman's service. The new genus "Woodrowia" among the Grasses is named after him. There are, besides, several new species named after him among the Cyperaceæ.

In 1885, Dr. Bonavia published a small work entitled "The Future of the Date Palm in India." He is of opinion that the Date Palm (*Phœnix dactylifera*) does not suffer from severity of rain either in growth or in the production of flower and fruit. Its growth, therefore, if carried on on an extensive scale in countries subject to famines, is most desirable, as a source of great benefit when other crops fail. The peculiarity of the Date Palm is that in times of famine "it will come," says Dr. Bonavia, "in its full glory, after having during previous years of abundant rain stored itself with abundant sap for times of scarcity." The Date Palm appears to be specially suited for cultivation where rain is scanty and the soil is dry. It must not, however, be supposed that it will not grow in tracts subject to rain. "Wherever the Date Palm grows," says Dr. Bonavia—"in Egypt, Northern Africa, Asia Minor, Arabia, Persia, Sindh, &c.—the people live on almost nothing else." To the Arabs, it is the "Staff of Life." Dried dates form no small a portion of the Indian sepoy's rations on field-service. Dr. Bonavia is of opinion that, if the Date Palm is introduced by Government extensively as part of famine-protection work, within about fifteen years it will become a famine-defying tree. "How it would gladden the hearts of the poor people," says Dr. Bonavia,

"when their crops were withering from failure of the monsoon, to turn their eyes to their palms, and see the dates swelling—turning yellow or red—and giving promise of plenty, to keep off starvation from their homes. What a truly magical 'two-stringed bow' that would be to have flourishing crops of 'bâjrâ,' 'jowâr,' and maize in one direction when the rain does come, and flourishing crops of dates in another direction when the rain does not come!" There is nothing to be lost in trying the experiment of cultivating barren, arid and waterless soil with the date palm; there is much to be gained if the enterprise turn out successful. It will be the dropping of "manna veritable" into the mouth of the starved and dying people.

In a work entitled "The Cultivated Oranges and Lemons of India and Ceylon," (1890), with an Atlas of 259 Plates, Dr. Bonavia has contributed much to our knowledge of these interesting and useful plants. The valuable information the work contains will be sure to give an impetus to Commercial and Economic Botany in India.

Our greatest achievement in Indian Botany is the gigantic and encyclopædic work, commenced in 1870 and completed in 1897, consisting of seven close-printed volumes, and entitled "The Flora of British India," under the supervision of Sir Joseph Hooker—that accomplished, erudite, and venerable botanist, who, since his younger days, when wandering in the cold bleak Himalayan Mountains, down to the present moment in his own hoary days of life, has cast a lasting lustre on the progress of Indian botany. Following in the wake of his illustrious father, Sir Joseph Hooker has maintained the reputation of his illustrious and learned father, and carried on the botanical work which smiled on his cradle. Both father and son, in their day, found no rival in the marvellous grasp of their subject, nor in the power to elucidate a branch of science so full of richness and unending interest. The only parallel to their work that I can find in the history of Universal Botany is that of the father and son De Candolles of Sweden.

Long before Sir Joseph Hooker's "Flora of British India" appeared, or was even contemplated, he and Dr. Thomson jointly made an attempt to publish a systematic account of the plants of British India. The first volume (Ranunculaceæ to Fumariaceæ) appeared in 1855. The attempt proved abortive, for the second volume never appeared. Similarly, Wight and Arnott produced the first volume of their Prodromus of the "Flora of India." That attempt, too, proved abortive. There was not another volume. It was left to Sir Joseph Hooker to complete the colossal work of describing and finishing an account of the Phanerogamia or Flowering plants. Great as this work is, it yet falls short of our requirements. The flowerless plants (*i.e.*, the Crypto-

gamia) are entirely omitted. It is to be hoped that the Botanical Survey of the Government of India may some day carry on the work.

The only work in connection with the Cryptogams of India that I know of consists of scattered notes published from time to time in the twenty volumes of the "Grevillea," a British Journal of Cryptogamic Botany, started by the Rev. Mr. Berkeley and subsequently edited by Mr. M. C. Cooke and Mr. George Massee, of the Kew Gardens. The Transactions of the Linnean Society of London contain volumes on Indian Mosses and Ceylon Fungi. The Cryptogams described in the "Grevillea" were sent from India by various collectors, chief among them being General Hobson of our Presidency.

Hooker and Thomson's "Flora of India" has one very interesting feature about it, and that is their Introductory Essay. It notices the work of previous Bombay botanists, namely, Graham, Law, Dalzell and Gibson, Nimmo, Stocks and others.

About Mr. Graham, Dr. Theodore Cooke in his preface to the first volume of his "Flora of the Bombay Presidency" says thus :—"The earliest Essay at a Flora of Bombay, was that of John Graham, Deputy Postmaster-General, who published in 1839 a Catalogue of the plants grown in Bombay and in its vicinity. Graham died at the early age of 34 before the work was entirely completed, and its final fifty pages were carried through the press by Nimmo." The few descriptions that are given in Graham's Catalogue are from Nimmo's pen. The value of Graham's Catalogue lies in his mention of the localities in which his plants were obtained. Dr. Cooke very rightly observes that considering the means of communication that existed at that time, for there were no railways, and travelling was difficult and tedious, one cannot help being struck with admiration at the number of plants brought together by Mr. Graham in his Catalogue. A botanist of great promise like him, with the gift of accurately examining and correctly naming the plants of the regions he visited, could not but make his work the basis for the Bombay botanical investigators who followed him.

Dalzell and Gibson, who jointly published their "Bombay Flora" in 1861, appear to have profited much by Graham's work. Mr. Dalzell's extensive collections of plants were made in the Southern Konkan and Kanara. As the result of his laborious work, we have several valuable papers in the London Journal of Botany. Dr. Gibson worked in the Konkan and in the Deccan.

Dr. J. Ellerton Stocks, of the Indian Medical Service, worked in the Konkan, and from Sind and Baluchistan he obtained an extremely valuable collection of indigenous plants, amounting

to about 1,500 species. This collection was finally arranged and named by Mr. Bentham of European fame. As a systematic botanist, Mr. Bentham has rendered eminent service to Indian Botany. He was one of the most industrious, able, useful, and philosophical botanists of his age, who, for correct appreciation of the value and limits of genera especially, is not surpassed by any systematist. (Hooker and Thomson.)

Mr. Law, of the Indian Civil Service, collected plants in the Konkan. His very valuable and extensive collections from Bombay, Thana, Dharwar, and Belgaum contain probably about 1,500 species.

Mr. Nimmo's collection of plants was chiefly made in Bombay. Dr. Ritchie worked in Belgaum and Kanara.

In our own day Mr. Talbot, of the Indian Forest Service, has, for a number of years, worked in Kanara. The result of his labours is that he has discovered several new species of plants which he has described in his work on the "Flora of Kanara."

Dr. Lisboa, of Bombay, has specially devoted his talents to collecting and describing the Bombay Grasses. He has discovered several new species, some of which are named after him. His work is embodied in the Journals of the Bombay Natural History Society.

A neat little work named "The Flowering Plants of Western India," was published, in 1894, by the late Rev. A. K. Nairne, formerly of the Bombay Civil Service. His work is based on the classification adopted in Hooker's "Flora of British India." Its value lies chiefly in the elaborate mention he makes of the localities of the plants he studied in the Konkan and in the Deccan.

The very latest achievement of the day for the future substantial progress of Indian botany, is the foundation of the Botanical Survey of India, under the auspices of the Government of India. Under the guidance of Sir George King, this progressive institution is full of promise, carried on, as it now is, under Major Prain, I.M.S., the present Superintendent of the Royal Botanical Gardens of Calcutta and the Director-General of the Botanical Survey of India. No work begun under the able supervision of so eminent and accomplished an Indian botanist as Sir George King, and continued by an equally eminent and accomplished botanist in the person of Major Prain, can fail to be of immense practical value to the future workers in Indian botany. I am deeply indebted to Major Prain for his having, at my request, generously and promptly supplied me with copies of all the reports, up to date, of the Survey, the future destinies of which he is now guiding with consummate skill and much arduous labour. I echo the sentiments of Dr. Theodore Cooke, when he says

that the inauguration of the Botanical Survey of India, and the subdivision of the Great Indian Continent into Northern, Southern, Eastern, and Western Regions, each forming a branch of the Survey, have secured the collection of sufficient material to warrant the preparation of Regional Floras for certain portions of the entire Continent of India. Already two such "*Floras*" of local interest, besides Dr. Cooke's "Flora of the Bombay Presidency," now in progress, have been published, namely:—(1) The "Forest Flora" of the School Circle of the North-West Provinces, by Mr. Upendranâth Kanjilal, Extra Assistant Conservator of Forests. This work appeared in 1901, and contains a descriptive list of the indigenous woody plants of the Saharanpur and Dehrâ Dûn Districts, and the adjoining portions of the Tehri-Garhwal State in the North-West Provinces. (2) The "Flora" of the Upper Gangetic Plain, and of the adjacent Siwâlik and Sub-Himalayan tracts. It appeared in 1903, and is from the pen of a mature and accomplished Indian botanist—Mr. J. F. Duthie, F.L.S., who was for a long time Superintendent of the Saharanpur Government Gardens, and has recently worked as Director of the Botanical Survey of Northern India. The first volume describes the Natural Orders from *Ranunculaceæ* to *Cornaceæ*. The second volume, which is promised, will complete the Phanerogamia. Mr. Duthie's two volumes on the indigenous Fodder-Grasses of the Plains of N.-W. India, consisting of 80 nature-printed plates, were published in 1886-87. They form an important contribution to our present knowledge of Fodder-Grasses.

There is yet another and an independent work of great interest on the Local Flora of India, which must be mentioned here. It is the posthumous work of the late Sir Henry Collett, F.L.S., of the Bengal Army, published in 1902, and named "Flora Simlensis." It will serve as a useful hand-book of the Flowering Plants of Simla and its woodland neighbourhood to workers in those fascinating regions. The chief interest of Sir Henry Collett's work lies in the fact that it is the outcome of a soldier's and a botanist's laborious and loving work. In a memorial note to this work, written by Sir William Thiseltone-Dyer, it is said that Sir Henry Collett talked of "taking up the Simla Mosses, when his Phanerogamic Flora should be accomplished." Considering what a careful observer of plant-life Sir Henry Collett was, I cry:—"What a loss to the Cryptogamic Botany of India!" We have very few workers, *hardly any systematic worker, I may say*, in the vast field of the Indian Cryptogamia. Would that he had lived yet longer. Field-Marshal Earl Roberts, the Commander-in-Chief of England, the glorious Reliever of Kandahar, and the Conqueror of Prætoria, bears testimony to Sir Henry Collett's worth as a man of "application,

resolution and ability," as a soldier in the first ranks of the British Army in India. Such a man could be ill-spared, as a devoted and assiduous worker in the hitherto unworked field of the Cryptogamic Botany of India. What he accomplished as a soldier he might have yet further accomplished, as a botanist of supreme love and talent, in the further prosecution of his favourite pursuits, so congenial to him, while in the midst of trying and onerous official duties. One of the most interesting features of Sir Henry Collett's "Flora Simlensis" is that the text is richly illustrated by Miss M. Smith, Artist at the Herbarium of the Royal Botanic Gardens of Kew. The illustrations are as accurate as they are beautiful.

I may here add that Mr. J. S. Gamble, F.R.S., late Director of the Forest School of Dehrâ Dûn—a botanist of distinction, who was long associated with Sir Henry Collett in botanical pursuits—has recently brought out an improved edition of his "Timbers of India," the first edition of which was published in Calcutta in 1881. The new and revised edition of Mr. J. S. Gamble's "Indian Timbers" came out in 1902. It gives an account of the growth, distribution and uses of the trees and shrubs of India and Ceylon. The most interesting feature of this edition is that there are 96 figures on XVI Plates, showing the wood-structure of some of the most important timbers. Mr. (now Sir Dietrich) Brandis published in 1874 his well illustrated "Forest Flora of North-West and Central India." Brandis describes his plants most accurately. No Indian botanist can rival him in that respect, except Roxburgh.

Kurz's "Flora of Burma," in two volumes, published in Calcutta in 1877, has added much to our knowledge of that acquisition to Imperial India. His contribution to the Transactions of the London Linnean Society on Indian and Burmese Fungi, published many years ago, will greatly aid the future workers in the Indian Cryptogamia. The descriptions are accurate.

Though not strictly connected with the Bombay Presidency, Major David Prain's practical work in Indian Botany requires special mention here. It is embodied in a re-print, in 1901, in a volume of 487 pages, of the "Botanical Notes and Papers," he has, from time to time, contributed to various Indian and European periodicals from 1894 to 1901. The volume embraces the description of six new genera and forty-seven new species and new varieties. To specifically mention them here would unnecessarily encroach upon the space I can reasonably claim in this paper.

When, in 1897, Sir Joseph Hooker completed the VIIth Volume of his "Flora of Br. India," after elaborate work extending to over a quarter of a century, in the preface, dated November 1897, much to the regret

of the students of the Cryptogamic Botany of India, he announced that his original intention, as declared in his preface to the first volume, of including in the later volumes an account of the Ferns and their Allies, had to be abandoned, owing to the appearance, meanwhile, of Hooker and Baker's "Synopsis Filicium (1874);" Clarke's "Ferns of Northern India;" Colonel Beddome's "Ferns of Southern India;" and his popular "Hand-book of the Ferns of India (1883)," with supplement in 1892. The geographical limits of Colonel Beddome's "Ferns of British India" include Ceylon and the Malay Peninsula only.

One of the most important works which appeared in the wake of Sir Joseph Hooker's "Flora of British India" at the close of the nineteenth century is Dr. Henry Trimen's "Flora of Ceylon." As the Director of the Royal Botanical Gardens of Peradineya (Ceylon), Dr. Trimen had very rare and great opportunities of studying the Flora of Ceylon. Having been an assiduous worker in the grand Herbarium of the British Museum, under Mr. William Carruthers, F.R.S., long before Dr. Trimen turned his eyes towards the East, to cast his energies in fresh fields of research in Ceylon, he had acquired the reputation of a careful, methodical, and learned botanist. Already as the author of the "Flora of Middlesex," he had amply shown his capacity as an independent worker in the field of British botany. His work bears the stamp of rare botanic genius. He died, to our greatest sorrow, after publishing the first three parts of his richly illustrated work. It was left to Sir Joseph Hooker to complete the elaborate work begun, and partly left unfinished, by Dr. Trimen. Dr. Trimen's "Flora of Ceylon" is a fit supplement to Hooker's "Flora of British India." Moreover, it has the advantage that the genera and species, described by Trimen, are in strict accordance with Hooker's "Flora of British India"—a fact acknowledged by Sir Joseph Hooker himself. Dr. Trimen's work will be of great use to future workers.

I find from the Report of the Director-General of Botanical Survey of India for 1901-1902 that the newly created post of the Cryptogamic Botanist, attached originally to the Survey, was held by Dr. J. E. Butler. He did excellent work during the year of his office. He has since been transferred to work directly under the Government of India. It appears from the Report of the Government Botanist of Madras for 1902-1903 that Dr. Butler has made a commencement towards collecting a Fungus-Flora of the Madras Presidency. Thirty-two specimens from Madras were sent to Dehrâ Dûn for him during that year.

The "Annals of the Royal Botanical Gardens" of Calcutta, which at the beginning of 1901 published the 1st Part of the 9th Volume

(royal quarto), have commenced, and carried on rapidly, an elaborate and costly series of well illustrated and learned works, written by the most accomplished botanists now working in India. It is a monument of well-directed industry, fraught with excellent results. Be it noted that the illustrations are all from native artists.

In Part II. of Volume V. of this interesting series, there are descriptions of new and rare Indian plants from the pen of Paul Brühl, of the Bengal Educational Service. In the Introductory Remarks he says thus :—"Two problems may be referred to as worthy of the attention of Indian botanists, namely :—(1) The tracing of the connection between the Flora of the North-Western Himalaya and that of Elburz and the Caucasus ; and (2), the establishment of the affinities which link the flora of the Central, and, still more, that of the Eastern Himalaya to that of Japan." If it were at all possible, I may observe, to enter on such extended research, I would suggest that a similar attempt might be made to trace the connection between the flora of Southern India and the flora of South-Western Australia ; the same might also be done to determine the affinities of the Flora of Western India with that of the Maldive and Laccadive Islands. Major Prain has recently published a paper on the Botany of the Laccadive Islands, from collections made by Major Alcock as Naturalist to the Indian Marine Survey-Ship "Investigator." (Journal, B. N. H. Society, Vol. VII., pp. 268, 460 ; Vol. VIII., pp. 57, 488.)

The Journals of the Bombay Branch of the Royal Asiatic Society contain very little written on botany or zoology, as I gather from the Index to Vols. I.—XVII. and from its Supplements covering Vols. XVIII.—XXI. In the earlier volumes of the Society, the name of Mr. H. J. Carter, F.R.S., is prominent as a contributor of original papers on Geology, Mineralogy, Zoology and Botany. His papers on the Fresh-water Sponges in the Island of Bombay (Vol. III., p. 32, 1849) are the only ones of their kind I know of. His paper on the ultimate structure of *Spongilla* and his additional notes on *Infusoria* are to be found in Vol. V. (p. 574) ; his notes on the Fresh-water *Infusoria* in the Island of Bombay (No. 1 Organization) are at page 429 of the same volume. At page 521 there is a paper on the Development of the Root-cell and its Nucleus in *Chara verticillata.*

Dr. Henry Vandyke Carter, whose inimitable talent and admirable patience for unceasing microscopical work are so well known, not only to us in Bombay, but also all over Europe and America, has found for us the Fungus of the Madura Foot. He also worked in the hey-day of laborious youth, physical and mental, on the microbes of Leprosy, Cholera and Spirillum Fever. His crowning work on the

Bacillus of the Spirillum Fever (The Famine Fever) of Bombay was published before his retirement from the Indian Medical Service. It secured him the Gold Medal of the Linnean Society of London. Few men have worked so laboriously and zealously at the microscope and with such success as he did in the midst of arduous official duties. His work will be of immense practical value to future microscopists.

To help in the cause of Natural History in Bombay, a small band of seven naturalists met in the Victoria and Albert Museum on 15th September 1883, and founded the Bombay Natural History Society. They began their modest work, by proposing "to meet monthly for exchange of notes, for exhibiting interesting specimens, and for otherwise encouraging one another. For several months the Society's meetings were held in the Victoria and Albert Museum. In January 1884, Mr. H. M. Phipson kindly offered the use of a room in his office in the Fort, where till this day its meetings are regularly held." The Museum of the Society now possesses a very large and interesting collection, from all parts of India, of various Natural History objects of great value and usefulness. Mr. Phipson has been the Society's energetic and active Secretary since its foundation. But for his and the learned Mr. R. A. Sterndale's and the genial E. H. A.'s untiring zeal, marked ability, ever-watchful care, and intense love for the entire field of Natural History, the Society's progress would not—nay, could not—have been so rapid as we see it this day. The literary work of the Society is embodied in the 15 volumes which have been published regularly up to date. They are replete with marvellous information, enshrining the labour of love of many learned and enterprising naturalists, sportsmen, collectors and donors. The Society's volumes have grown, from year to year, in size and importance by virtue of the rich fund of knowledge which their pages afford. The beauty of the Society's Journal is mightily enhanced by varied and richly-coloured plates of illustrations drawn from nature. Its main field is zoology, but botany is also rightly allowed a liberal space. The Society's No. I. of the 16th volume was published on 17th December 1904. The number of the Society's members is now close upon a thousand. It means marvellous progress, all due to the energy and activity of Messrs. Phipson, Aitken, and Millard.

I must not omit to mention here the botanical work independently done by other Bombay workers. First and foremost among them is Dr. William Dymock, whose crowning work is the "Pharmacographia Indica," he having had, for his collaborateurs, Surgeon-Major Warden, of Calcutta, and Mr. Hooper, the Quinologist of Ootacamund. The brother-doctors Bhàu and Nârâyan Dàji have done much to advance the progress of botany in Bombay. Dr. Bhâu was, in his younger

days, a great traveller in pursuit of botanical specimens. He was the scrutinizer of an original Gujarâthi work on Indian Plants, published by Katâ Bhat of Kathiyâwâd, to which Dr. Bhâu Dâji contributed the Latin and English synonyms of the plants described in the work of Katâ Bhat. Dr. Narâyan Dâji was a fond collector of Indian plants. His paper on the *Ailanthus excelsa* (Mâh-rukh) is published in the Transactions of the Grant Medical College Society. It is of importance to note here that Mr. Herbert M. Birdwood did not know of this great tree "*Mâh-rukh*" till it was pointed out to him in the jungle below Chowk plateau of Matheran by his "faithful friend Vithu" about 1897. Many years before that, however, Dr. Narâyan Dâji had described the tree and its medicinal properties in the Grant Medical College Society's Journal. (Pp. 1—15; No. III; 1878).

The botanical work of Dr. Sakharam Arjun is embodied in the rich Herbarium of the Bombay Plants, which, after his sad and untimely death, was handed over by his son, Vasantrao, to the Library of the Grant Medical College. Dr. Sakharam in his work entitled "The Bombay Drugs" has added much new matter, and corrected many errors in the writings of his predecessors. It was published in 1879.

Dr. Pandurang Gopal, G.G.M.C., published, several years ago, an interesting Catalogue, in Marâthi, of the Bombay Medicinal Plants. It is full of original remarks.

Drs. Bhalchandra and Dhargalkar have also published small works on botany—the former writes in Marâthi, basing his work on Bentley's English botany; the latter writes in English a brief account of the medicinal value of Indian plants.

Dr. R. N. Khory, who died last December in London, and Dr. N. N. Katrak have recently published in two large volumes a work entitled "The Materia Medica of India." They form the Second Edition of Dr. Khory's original work published, many years ago, under the same name. It is full of varied information originally supplied by my friend Mr. Jayakrishna Indraji of Porebunder. Jayakrishna's knowledge of Indian plants is always accurate. Mr. Jayakrishna, besides, supplied a good deal of valuable information to the Rev. Mr. Nairne when Mr. Nairne's work, already referred to, was in progress.

A great deal of original work is also scattered throughout the numerous earlier volumes of the Bombay Medical and Physical Society, chiefly contributed by the members of the honoured Indian Medical Service. The volumes of the Grant Medical College Society also contain several papers on Indian botanical subjects contributed by some of the older Bombay medical graduates. Their work is original and of much value.

In the year 1892, Sir John Lubbock (now Lord Avebury) published two elaborate volumes on Seedlings. The entire work is quite original, as it is unique in the admirable amount of patience Sir John manifests in carrying on his researchful labours day after day with the grasp of a masterly mind and the touch of a masterly hand. The work renders substantial aid in the study of the germination of the seed and of the early stages of plant-life. Many Indian plant-seeds are to be met with in the work, which are treated with elaborate details and which will help Indian students in that department of research hitherto untreated of since the days of Gaërtner (1807); Jussieu (1839); and Hofmeister (1861).

Here ends my brief survey, reviewing the work of such botanists as have either laid the foundation of the scientific study of Indian plants, or have materially contributed to the progress of Indian botany during the century that has just closed. If I have omitted any name, suffice it to say that it is not intentional, but because I am writing this paper far away from my usual books of reference.

II.

I now turn to Zoology, as worked out and helped on in India generally, and in the Bombay Presidency particularly. I have already referred to the work of Mr. H. J. Carter, F.R.S., as contained in the earlier volumes of this Society. Be it said to the lasting credit of the Bombay Natural History Society that, since its foundation, it has given a fresh start and a new interest to the study of animals and plants, in the fields and forests, in the land-water and sea-water areas throughout the Imperial India of our day.

What was accomplished by Hooker's "Flora of British India" in the field of botany is now being accomplished by the series entitled "The Fauna of British India, Ceylon and Burma," under the Editorship of Mr. W. F. Blandford, F.R.S., the last product of which was published in 1904. It is encouraging to note that this elaborate attempt to help the students of Indian zoology, under the auspices of the Secretary of State for India in Council, is the outcome of an earnest and spontaneous appeal made by disinterested British naturalists, whose honoured names deserve a lasting place in the gratitude of Indian naturalists. I cannot better substantiate my remarks than by a direct reference to the sentiments of Mr. Blandford, as contained in the very first volume of the series which he published as his own work entitled "The Mammals of India" (1888—1891). "The need for new and descriptive works on Indian zoology," says Blandford, "had for some years before 1881 been felt and discussed amongst the naturalists in India,

but the attention of the Government of India was, I believe, first called to the matter by a memorial, dated 15th September of that year, prepared by Mr. P. L. Sclater, the well-known Secretary of the Zoological Society of London, signed by Mr. Charles Darwin, Sir Joseph Hooker, Professor Huxley, Sir John Lubbock (now Lord Avebury), Professor W. H. Flower, and by Mr. Sclater himself." The memorial was in due course presented to the Secretary of State for India in Council. It recommended the preparation of a Series of Hand-Books of Indian Zoology and Mr. Blandford's appointment as Editor of that Series. This appeal of Mr. Charles Darwin and his Co-Memorialists was fully and promptly accepted. The day when this was done will ever remain a red-letter day in the annals of Indian zoology. Indian naturalists, of all shades and capacities whatsoever, cannot be sufficiently grateful to the learned and disinterested British Memorialists for the mightily encouraging stimulus they have independently and unsolicitedly given to the further progress of Indian zoology. May the beaming torch they have lighted shine brighter and brighter in days to come, and show us the bright-beaming light we have hitherto wanted! This light comes from West to East.

Unlike the necessarily tardy progress of Hooker's "Flora of British India" during the last quarter of the past century, Mr. Blandford's "Fauna of British India," in his hands, promises to make a steady and rapid progress, for, while publishing his volume on the Mammalia in 1891, he says that at that time *six* out of the *seven* volumes, originally contemplated to embrace the *Vertebrata* of British India, had been completed.

I now turn to a brief sketch of some of the work done in zoology, which is divided into several sub-kingdoms.*

I.—SUB-KINGDOM VERTEBRATA.

CLASS I.—THE MAMMALS (*Mammalia*).

Before Blandford's work on the Mammals appeared, there had been published, in 1867, by Mr. T. C. Jerdon, Surgeon-Major, Madras Army, an account of the "Mammals of India." This work was re-printed in London in 1874. After the first publication of Jerdon's work, British India included Ceylon, Burma, and the Trans-Indus territories. Moreover, since Jerdon wrote, a very great advance was made in the study of Bats, Insects, and Rodents. Jerdon's classification was nearly that of Cuvier, with a few modifications. In the Introductory Chapter, Jerdon gives a short account of the work done by his

* According to the latest classification (1897), the Sub-Kingdoms are:—I. Vertebrata; I Arthropoda; III. Mollusca; IV. Brachiopoda; V. Echinoderma; VI. Bryozoa (Polyzoa); VII. Vermes; VIII. Cœlentera; IX. Protozoa.

predecessors in the field of zoology. "But few naturalists in India," says Jerdon, "have recorded their observations on the class of mammals. Colonel Sykes was the first who published a list of the animals observed by him in the Deccan, in which he described several of the common animals of the country; and this excellent observer was the first to discover several of them." Sir Walter Elliot followed, in 1839, with a Catalogue of Mammals of the Southern Mahratta Country, and this excellent observer was the first to distinguish many of the smaller mammals of which he has given an admirable account. "He has not published since," says Jerdon, "but has continued his researches and discovered several novelties, amongst others, the *Tupaia* (Tree-Shrews) of Southern India"—called Tupuia Elliotti—the Madras Tree-shrew. "That indefatigable observer and collector, Mr. Hodgson," says Jerdon further, "has published several lists of Mammals of Nepaul, and has described many species, giving detailed accounts of the habits and structure of a few. Colonel Tickell has published a detailed history of a few animals in such a full and interesting manner as to lead one to wish he had written much more. Major Hutton has also recorded some interesting facts on the Mammals of Afghanistan, and has largely collected, especially the bats and smaller animals of the Himalayas."

As a "Natural History of the Mammals of India," Jerdon's work, says Mr. Sterndale, is incomplete; and this is so for obvious reasons, considering the supreme difficulty and tediousness of travelling and of collecting dead or living specimens in the days when Jerdon worked and carried on his single-handed pursuits of the most laborious kind.

In the year 1884, Mr. Robert A. Sterndale, whose name is so familiar to us in Bombay, published his work, entitled "The Natural History of the Mammalia of India and Ceylon." It is a popular Manual written in Mr. Sterndale's clear and attractive style. He has abandoned in his work what he calls the stiff formality of the compiled "Natural Histories," and has endeavoured to present his remarks in an interesting, conversational, and often anecdotal style, embodying the results of experience by himself and his personal friends, at the same time freely availing himself of all known authorities upon the subject. In a long period of jungle-life, Mr. Sterndale had various and splendid opportunities for observation of the habits of animals in their wild state, and also in captivity, he having himself made a large collection of living specimens from time to time. As the result of his artistic and facile pen, we have a well-illustrated work, named "The Denizens of the Jungle." In his work on the Mammals, he follows Cuvier's system with such modifications as have

met with the approval of modern naturalists. His Marâthî names are accurately transcribed. He died very recently while Governor of St. Helena.

Mr. W. T. Blandford's work on the Mammals (1888—1891), forming the 1st Volume of the Series entitled "The Fauna of British India," is a distinct advance upon any work previously published. The *area* of zoological research now includes not only British India and Ceylon, but also Burma, countries north of the Main Himalayan Range, West of Indus, or East of the Bay of Bengal, and a line drawn northwards from the head of it (Assam, Cachar, Tenasserim and Arracan). To Dr. Dobson we owe a complete account of the Asiatic Chiroptera. The following references are made in Blanford's "Mammalia" to the work of the late Mr. W. F. Sinclair of the Bombay Civil Service :—(1) With regard to the Little Indian Porpoise (*Phocæna phocænoides*) Mr. Sinclair says that "it frequents tidal creeks, not ascending very far, and the sounds among the reefs and islands. It feeds chiefly on prawns, and also on small cephalopods and fish. It does not appear to herd '*in schools*'; more than four or five are rarely, if ever, seen together. Usually, it is solitary; the pairs seem to consist of female and calf. The young (one in number) are born apparently about October. The roll of this porpoise is like that of a *Phocæna communis*. It does not jump or turn somersaults like the *Platanista* and *Delphini*, and is, on the whole, a sluggish little porpoise." (2) The second reference to Mr. Sinclair runs thus :—Mr. Sinclair describes "the colour of the Speckled Dolphin (*Steno lentiginosus*) above and (and below, behind the anus) rather pale and leaden grey, with numerous long drop-shaped spots. Of these the majority, especially on the rostrum, limbs, dorsal fins, and flukes, are pure white, the rest dark slate-colour or black. Below, much mottled on the belly with the dorsal ground-colour, less so on the breast, and the mental (*chin*) region almost pure white; but there are a few black spots." Mr. Sinclair found and examined the species at Alibag in the Kolaba District.

In concluding my remarks on the mammals I must not omit to record here the work done by Lieut.-Colonel A. S. G. Jayakar, I.M.S. (Retired). While he was Residency Surgeon of Muskat for near thirty years, he sent to the British Museum, from time to time, carefully made zoological specimens with his own observations, for he was not a mere collector. His intense love for zoology has immortalized his name, not only in the Archives of the British Museum, but in the Grand Temple of Science. His specimens have been named and described by the authorities of the British Museum. Any further references I have to make in this paper to Colonel Jayakar with regard to the specimens sent by him will be not in my words, but in the words of the describers

themselves, as published in the various zoological journals of England and the Continent. Among mammals, four new species* have been found by him.

Of these, with regard to *Gazella marica* (*nov. sp.*), Mr. Oldfield Thomas says thus:—"Dr. Jayakar says in his letter that 'among the mammals are found four Reem Gazelles from the Nejd desert, and one from Dahireh, the north-western district of Oman. It is probable that the species extends down to the desert behind Oman, as that is continuous with the Nejd desert.'"

Of some of the specimens of mammals from Oman, S.-E. Arabia, examined by Mr. Thomas, there is one named after Colonel Jayakar (*Hemitragus Jayakari*, Thos.). "This fine animal," says Mr. Thomas, "which has given me great pleasure to name in honour of its discoverer and donor, is the great prize of his collection, both from a scientific and a sporting point of view." Mr. Thomas further remarks that this *New Goat* found by Colonel Jayakar "forms a most striking and interesting discovery, on which Dr. Jayakar is much to be congratulated." The *New Hare* (*Lepus omanensis*) found by Colonel Jayakar is also markedly distinct from any of its allies. Dr. Jayakar's find of the *New Goat* has finally settled a long-disputed point about the inclusion of the group *Hemitragi* into genus *Capra*. "As a matter of geographical distribution, the *New Goat* is a matter of the highest importance, for while it is unquestionably a member of the group *Hemitragus*, its locality is in the middle of a region inhabited only by *True Goats* (*Capra*), and therefore, to some extent, its discovery confirms the separation of the two groups, and shows that *Hemitragus* is not merely a local modification of *Capra*, due in any sense to geographical conditions. In 1886, Mr. Sclater contributed to the Zoological Society (Pr. 1886, p. 314) a very useful account of the genus *Capra*, recognizing ten species, among which were included the two *Hemitragi*. How little the discovery of the *New Goat* might have been expected is indicated by the fact that of these ten species the latest discovered, the *Markhor*, was described in 1839 (and *C. cylindricornis*, omitted by Sclater in 1841), so that there has not been a new valid species found for over half a century, although no animals have been more keenly sought after by sportsmen, or willingly investigated by naturalists." (Thomas.)

The next mammal named after Colonel Jayakar is the *Procavia syriaca-jayakari* (Thos.). With reference to this mammal, Mr. Thomas†

*(1) *Lepus omanensis*. (Proc. Z. Soc. Lond., May 1, 1894.)
(2) *Gazella marica Nov. Species* (An. and Mag. N. H. Ser. 6, Vol. XIX, Feb. 1897.)
(3) *Hemitragus Jayakari*. (An. and M. N. H. Ser. 6., Vol. XIII, 1894.)
(4) *Procavia Syriaca-jayakari*. (Proc. Z. S. Lond., May 1, 1894.).

† A paper on the Hyracoidea: Pr. Z. Soc., London, 1872. January 5th; pp. 52—76.

observes thus :—"Thanks to the energy of Dr. A. S. G. Jayakar of Muskat, I am enabled to announce a very considerable extension of the known range of the species *Procavia syriaca*, and at the same time of the genus, for he obtained an adult female with its young at Dofar on the Southern Coast of Arabia about half-way between Muskat and Aden, no Hyracoidea having been previously known in South Arabia at all."

CLASS II.—BIRDS (AVES).

The most recent production on birds consists of four volumes written by E. W. Oates and Blanford, and published in Blanford's Series of the "Fauna of the British India" from 1889 to 1898.

Birds, aërial or pelagic, whether in their native homes or haunts, or in captivity as pets, have always been a fascinating and favourite study to naturalists all over the world. The names of Indian collectors, students, and writers are too numerous to be all mentioned here. Dr. Jerdon gives an account of the principal writers on Indian birds up to 1862 in his Introduction to the First Volume of the Birds of India. "The Classification" adopted by Jerdon was obsolete even when he wrote, and is in many respects inferior to that of Blyth, as given by Blyth* thirteen years before Jerdon's work appeared.

Since the days of Huxley, Garrod, and Forbes, the Classification of Birds has undergone many additions and changes, which Mr. Oates has adopted in his work. "To mention briefly," says Mr. Blanford, "hitherto the progress of ornithology may be divided into two periods, the first of which, ending with Jerdon's work, was especially signalized by the labours of Hodgson, Jerdon, and Blyth, whilst in the more recent period the dominant figure has been Mr. A. O. Hume, whose 'Stray Feathers' include the researches of distinguished ornithologists, Mr. Hume having himself contributed by far the largest number of papers to that periodical."

Lieut. H. Barnes' "Hand-Book to the Birds of the Bombay Presidency" was published in 1897. It being of local interest deserves a passing notice. Barnes has professedly followed Jerdon, as closely as possible, in the description of the birds given in his work. The classification is therefore antiquated. The work, however, is capable of achieving its main object, namely, that of enabling its reader to identify any bird he may come across within the limits of the Bombay Presidency, especially as Mr. Barnes had spent twenty years of his life in most of the military stations of the Presidency before he published his work. Barnes had ample opportunities for the careful study of bird-life in all its varied phases while engaged in the discharge of his legitimate official duties.

* *See* Blyth's Catalogue of the Birds in the Calcutta Museum of the Asiatic Society.

Mr. E. H. Aitken has recently published a small popular book on the Bombay Birds written in his usual racy, humorous, and fascinating style.

CLASS III.—REPTILES AND BATRACHIANS (AMPHIBIANS). (REPTILIA AND BATRACHIA).

The most important work on this class of vertebrates was published in 1890. It forms a part of Blanford's "Fauna of British India," and is from the pen of G. A. Boulenger. Until recently, reptiles and batrachians were not regarded as distinct. The batrachians are intermediate between reptiles and fishes, for the distinctions between batrachians and fishes are very slight indeed. Mr. Boulenger's work is based on Günther's "Reptiles of British India" (1864, Ray Society) and on Mr. Theobold's "Descriptive Catalogue of the Reptiles of British India." Mr. Blanford adds several new species comprised in the expanded regions of Modern Imperial India.

Among the lizards (*Lacertilia*) two new species are named after Colonel Jayakar, namely *Agama jayakari* and *Lacerta jayakari*.

Among the snakes (*Ophidia*) some new species are named after Mr. H. M. Phipson. Two are named after Colonel Jayakar, namely, *Hydrophis jayakari* and *Erix jayakari*. Mr. R. M. Dixon contributes a paper on the *Senses of the Snakes* to the Verhandlungen des V. Internat: Zoologen Congresses zu Berlin, pp. 990—992; and another on the *Ecdyses* of the snakes published in the "Zoologist of London," pp. 336-337, September, 1903. Both these papers are full of original observations.

CLASS IV.—FISHES (PISCES).

The latest work on this interesting and useful class consists of two volumes by Francis Day, (1889). It is a part of Blanford's "Fauna of British India." It is chiefly an abridgment of Dr. Day's well-known and richly illustrated work entitled "Fishes of India," published in 1876—1878, and a supplement containing additions and alterations up to 1888. The limits of the Fresh-water Fishes are extended to Imperial India. The original work of Dr. Day being in itself encyclopædic, its abridgment is sure to be of immense use to future students of Indian ichthyology. Several vernacular names are accurately given. They are of very great value.

I must here refer to Dr. Günther's learned work, named "Introduction to the Study of Fishes," which was published in 1880. Though it is said to be intended to meet the requirements of those who are desirous of studying the *Elements* of Ichthyology, it will serve as a splendid book of reference to zoologists generally, and supply such travellers as have frequent opportunities of observing and studying

fishes accurately, with ready means of obtaining information. The chapter on the History and Literature of Fishes is learned, elaborate, and up to date. The history begins with Aristotle (B.C. 384—322), and extends to the latest writers* of systematic works, from all parts of the world, old and new. It means mighty labour, full of extensive knowledge of immense value and practical use, not only to the modest *elementary* student, but also to the most advanced ichthyologist of the modern century.

In the vast collection of fishes made by Colonel Jayakar on the Arabian Coast since 1873, and presented by him to the British Museum from time to time, no less than 22 new species have been described by the British Museum authorities, seven of which have been named after Colonel Jayakar. They are all to be found in the Proceedings of the London Zoological Society and in the pages of the Annals and Magazine of Natural History.

II.—SUB-KINGDOM ANTHROPODA.

Turning now to this II. Sub-Kingdom of the entire Animal Kingdom, called *Anthropoda* (otherwise named *Articulata* or *Annulosa*), including Crabs, Lobsters, Shrimps, Prawns, &c. (I.—Crustacea); Spiders, Scorpions and Mites (II.—Arachnida); Centipedes and Millipedes (III.—Myriopoda); (IV.—Protracheata, found in Africa, America and Australasia) and Insects (V.—Insecta), I have briefly to allude here to *Class II.* (*Arachnida*) and to *Class V.* (*Insecta*).

Class II.—The *Arachnida* (Spiders, Scorpions and Mites).

The latest and the most important work on this subject is from the pen of Mr. R. I. Pocock, published in 1900, as forming a recent addition to Blanford's "Fauna of British India." In his Preface, Mr. Pocock amply acknowledges the services of Messrs. R. C. Wroughton and H. M. Phipson, of Bombay, as also the services of Major Alcock, I.M.S., of the Calcutta Museum, nay even those of older workers, Stolickza, Simon and Dr. R. Gestro. The united labours of these and other workers have vastly increased and improved our knowledge of *Indian Arachnology*. Several new species have been named in the work after Mr. Phipson, Mr. Wroughton, Mr. Millet, and Mr. Millard.

Class V.—The *Insecta* (Insects).

Amongst the Insects, the Moths and Butterflies of the order *Lepidoptera* have been described by various learned writers. The Butterflies (*Rhopalocera*) are treated by Marshall and Nicéville in three volumes published between 1882 and 1890. The Moths (*Heterocera*) have been described in four volumes by Mr. G. F. Hampson, in Blanford's series of the "Fauna of India." The fourth volume was pub-

* Johannes Müller (born 1801, died 1858); Agassiz (born 1807, died 1873); Haekel, Blanchard, Schlegel, Richardson, Stannius, Owen, Huxley, and several others.

lished in 1896. The Moths of Bombay, Poona, and other localities have been largely and ably handled by Colonel C. Swinhoe who has been an indefatigable collector for several years past. The first volume on the *Hymenoptera* dealing with Wasps and Bees, and the second volume dealing with Ants and Cuckoo-wasps, were published in 1897 and 1903, respectively, in Blanford's Series. They are from the learned pen of Lieut.-Col. Bingham. Mr. Wroughton, of the Bombay Forest Service, has for a series of years specially interested himself in the collection of Ants (*Heterogyna*) in the Bombay Presidency. The result of his arduous labours is embodied in the Journals of the Bombay N. H. Society. Many new species have been named after him. They are all included in Colonel Bingham's work. The *Hemiptera* (Bugs and Frog-hoppers) are treated in two volumes from the pen of Mr. W. L. Distant, in the "Fauna of British India" of Blandford (1902-04). The chief interest of this work lies in the fact that a Bombay naturalist in the person of Mr. R. M. Dixon, of the Bombay Victoria and Albert Museum, has contributed much new information on the Rhynchota found about Bor Ghât near Bombay. The discoveries hitherto made by Mr. Dixon consist of sixteen species of Rhynchota new to science; among these, five species are of such great rarity that, for their reception, four new genera have been founded. They are all to be found in Mr. Distant's work. "Besides these," Mr. Dixon writes in a letter to me, "I have placed on record about one hundred rare species of Rhynchota not before known to science." Mr. Dixon's unpretentious labours are full of original research, as will be seen from the following instances duly acknowledged by writers who can speak with authority :—

(*a*) "*Fertilization through the agency of Insects.*"—(1) Mr. Dixon gives the following information relating to *Cantao ocellatus*, Thunb., —(The "Moon-tree Bug"):—"It occurs on the Moon-tree (*Macaranga Roxburghii*). Its habits are diurnal and very active. Pollination in the 'Moon' tree seems to depend entirely upon this insect, which by means of its feet, rostrum, and spines conveys to the stigma the fertilizing pollen-dust, frequently from a distance of two or three miles." (2) *Aspongopus nigriventris*, Westw. (The Sago-Palm Bug) :—"This bug is usually hidden from view on the profusely branched pendulous spadices of the Sago-Palm (*Caryota urens*, Linn.). Greedily sucks the saccharine juices from the flowers, and when in comatose state is frequently attacked and carried away bodily by smaller ants, which devour the antennæ, proboscis, and even the feet. This remarkable bug is the principal agent through the aid of which the stigma in the Palm (*C. urens*) is pollinated. Common in Bor Ghât in April and May. (R. M. Dixon.)" (Fauna, B. I., Rhynchota, Vol. I., p. 284.)

(*b*) "*Bionomic observations and thrilling personal experience.*" (1) Mr. Distant in the Rhynchota of British India under Reduviidæ says that "Dr. Sharp, in 1899, estimated that upwards of 2,000 species were then known, and, as he remarks, their habits seem to be chiefly of a predaceous nature, the creatures drawing their nutriment from the animal rather than from the vegetable kingdom, and their chief prey being, in all probability, other kinds of insects." Mr. Dixon, of Bombay, however, who has paid considerable attention to these Rhynchota in his district, where he states they are usually nocturnal in habits, writes to me thus :—"They feed chiefly on the mucilaginous juices of plants. The sharp, needle-like rostrum of the insect seems to fulfil a very important bionomic function. It generally pierces the inner bark of a plant, and discharges into the wound an acrid poisonous fluid which rarefies the mucilaginous sap and helps the setæ to suck the juice with ease and convenience, evidently doing no harm to the plant, but, on the contrary, promoting the exudation of the valuable sap. Hence there is reason to believe that the gums, resins, and other resinous vegetable products of commercial value depend largely on the punctures made by the Reduviids. The blood-sucking propensities of some of the species are, I believe, due to a habit acquired probably for purposes of self-defence." (Fauna, B. I., Rhynchota, Vol. II., p. 196.)

(2) *Acanthaspis megaspila*, Walk.

"*Habit.*—'Hindostan' (Whitehill, Brit. Mus.), Bor Ghât (Dixon).

"The puncture made by this Reduviid causes acute pain with burning sensation, the symptoms of the case very much resembling those produced by the bite of the venomous reptile *Trimesurus anamallensis.* The smarting sensation, if immediately attended to, subsides in one or two hours; but the whole hand becomes painfully swollen if the punctures occur on a finger, the wound taking about ten days to heal. (R. M. Dixon.)" (Fauna, B. I., Rhynchota, Vol. II., p. 265.)

III.—SUB-KINGDOM MOLLUSCA.

Coming now to a survey of the work done by Indian zoologists in this Sub-Kingdom, I find several learned stray notes left, in his own handwriting, by Mr. W. F. Sinclair in an inter-leaved copy of Mr. Woodward's Manual of the Mollusca (edited by Mr. Ralph Tate in 1880), which Mr. Sinclair presented to the Library of the Bombay Natural History Society just before he retired from the Civil Service. I am tempted to bring them together here, but I think it better to leave them to be dealt with by that Society.

The vast field of the remaining six sub-kingdoms yet remains to be dealt with in Mr. Blandford's series of the "Fauna of British India." As a help to workers in the remaining Indian invertebrata, the splendid

volumes of the Cambridge Series of Natural History afford substantial information put together by able writers.

Sir John Lubbock (now Lord Avebury) as President of the 4th Congress of Zoology, held at Cambridge in August 1898, in his inaugural address observed thus :—"We are, in fact, on the threshold of the Temple of Science. Ours is therefore a delightful and inspiring science. What a blessing it would be for mankind if we could stop the enormous expenditure on engines for the destruction of life and property, and spend the tenth, the hundredth, or even the thousandth part on scientific progress! Few people realize what science has done for man; and fewer still, how much more it would still do, if permitted! From a practical point of view, especially as regards our food-supplies and the prevention of disease, the future progress of zoology will, doubtless, reward us with discoveries of great and practical importance. More students would devote themselves to science if it were not so systematically neglected in our schools, if our boys and girls were not given the impression that the field of discovery is well nigh exhausted." Gentlemen, if these glorious words of Lord Avebury apply to Great Britain, how much more truly, may I ask, can they not be applied to India? How can we fail to utter the same cry that has been heard from the lips of one who has been a mighty worker and a profound thinker in the entire field of Natural History, the pages of which he has adorned with his exquisite pen for many years as an earnest and devoted student of science?

I now find myself at the end of the task I have assigned unto myself for the purposes of this compressed paper. In concluding it, I am not without hope that the zeal, ability, and untiring energy which Mr. Blandford has hitherto shown in the prosecution of the series of "The Fauna of British India," and India's modern imperial confines, already referred to by me, may yet secure to the students of Indian zoology elaborate and authentic works on the vast and hitherto unexplored subject of the remaining Indian invertebrates. It is a consummation most devoutly to be wished for and most earnestly awaited.

Gentlemen, in conclusion permit me to say that from the sky-seeking peaks of the loftiest mountains of India to the muddy regions of the deepest depths of the Indian Ocean, there is but one language to learn, and but one language to teach, as the outcome of the ravishing knowledge they impart, and have been imparting from time to time, in bygone ages, time out of mind. The living organisms, and the dead, but eloquent, remnants of life that once existed, from the creation of this wondrous world, unfold unto us, in language unmistakeable, the mighty results of the secret workings of Nature. We

cannot ignore them, even if we would, though we may not be able to thoroughly understand them, or to interpret their true meaning, or its ultimate influence on animated beings.

From the loftiest Himalayan pines and deodârs to the minutest lichen, moss, or protococcus of our fields and streams, our ponds and ditches, from the sturdiest and fiercest lion or the tiger, and the stoutest elephant of our jungles, from the cunningest crocodile or the bulkiest hippopotamus of our magnificent rivers to the tiniest micrococcus or the most despicable flea, from the most ponderous whale to the smallest protean amœba, go as high as you like, or descend as low as you like, in the scale of this vast creation—the entire animated life has but one lesson to learn—but one lesson to teach—but one grand universal Anthem of admonition to sing, namely that if organic beings have to live, to grow, to prosper, and to propagate their species or their individuals, they must realize their surroundings, and adapt themselves to their ever-changing, ever-varying environment, or alter themselves according to its stern requirements : and thus doing, they must prepare themselves for the infinite struggle which is perpetually going on, for bare existence, in the vast world around. This can only be achieved by obeying the Laws of Nature, such as they are, without dispute and without respite.

To *Man*, the prime, and the most sentient, the most intelligent, and the most intellectual of the entire animated world, it is further accorded, it is further vouchsafed, ***nay even enjoined***, to rise from Nature unto Nature's God—the All-powerful, the All-knowing, and the All-present, Maker and Preserver of this wonderful and charming Universe—*One without a Second!*

Addendum.

The following magic-lantern photographs were exhibited by Lieut.-Col. K. R. Kirtikar at the Conversazione of the Society :—

1. The Doum Palm in the ruins of the Bassein Fort (Thana).
2. A branching Coco-Palm growing in Bassein (Thana).
3. *Conferva birdwoodii*, an Alga growing in the hot-water springs of Vajrâbâi (Thana District).
4. A branching bunch of Plantain (six divisions of the spadix), growing in October 1904 in Girgaum, Bombay.
5. An African Cycad in Sir Roger de Faria's garden in Mazagon, Bombay. A very rare plant, and the only one to be found in the Bombay Presidency. It is named *Encephelartos altensternii.*
6. The male cone of the same in natural tints as found in October 1904.

2.—*Some Recent Advances in Protozoal Pathology in Relation to Man.*

By Lieut.-Col. W. B. Bannerman, M.D., B.Sc. (Edin.), I.M.S.

The period that has elapsed since the foundation of the Bombay Branch of the Royal Asiatic Society has truly been termed the "Wonderful Century." The development of science in all its branches has been extraordinary, and beyond anything the world has before witnessed. That branch of Natural Science called Micro-biology was undreamed of when this Society was founded; it is now one of the most vitally important for those, who, like ourselves, dwell in the tropics. By research conducted by innumerable workers into the life-history of lowly organised animals and plants, the cause of many devastating diseases has been discovered, and means found for defending mankind against their ravages.

Though bacteria had been recognised and described by Leeuwenhoek, and spontaneous generation had been disproved by Francesco Redi in the 17th century, it was not till the elaboration of staining methods and the use of perfected lenses rendered possible the work of Schwaun, Pasteur, Tyndall, Koch, Lister and other workers, during the middle and end of the 19th century, that we can say that the science of Micro-biology arose. It was so lately as 1863 that Davaine demonstrated the causal relation between the anthrax bacillus and that disease, thereby showing for the first time that an infectious disease was caused by a living germ or *materies morbi*. Ten years later Obermeier proved that relapsing fever was due to a spirillum in the blood.

The methods devised by Pasteur and Koch for isolating and growing bacteria in a pure state on artificial media soon enabled workers to isolate the germs of many diseases and to prove by their inoculation into animals their causal relations.

In 1879, Hansen announced the discovery of specific bacteria in leprous nodules.

In 1880 the bacillus of typhoid fever was observed by Eberth, and Pasteur published his work on Chicken Cholera.

In 1882 Koch announced the discovery of the bacillus of tubercle.

In 1884 the same worker discovered the cholera germ in Calcutta, and Loffler described the bacillus of diphtheria.

In the same year Nicolaier discovered the bacillus of tetanus, so common in the soil of the tropics.

In 1894 the plague bacillus was isolated by Yersin, and Kitasato, working independently in Hongkong.

From the list just given, which includes only a few of the more important bacteria, it will be realised that to describe them in anything like detail would far exceed the bounds of a short paper such as this. It is therefore proposed to pass by bacteria altogether as being more or less well known to the members of this Society and to give some account of the more recent branch of the Science of Microbiology which has to do with animal parasites belonging to the Protozoa. As it is necessary to keep this paper within a reasonable compass, three only of these parasites will be dealt with, *viz.*, the parasites of Malaria, Trypanosomiasis, and Splenomegaly.

1. The inhabitants of many malarious countries have held traditionally that mosquitoes had something to do with the causation of malaria. This fact was noted by Lancisi, the Italian observer, who in 1718 propounded the theory that malarial fevers had some connection with marshes and the miasm generated by them.

King, in America, and others, long ago pointed out how the mosquito, as the carrier of malaria, would serve to explain many things which were puzzling in connection with the ætiology of this disease. He showed how this hypothesis would explain the connection of malaria with swamps in hot regions, and the protection afforded by the interposition of broad sheets of water, or belts of trees, and the influence of altitude. He also noted that this would serve to explain the danger of night exposure in malarious places. The old type of Indian Army Officer who spent much of his leave shooting in the jungles, before hill-stations became fashionable, used to maintain that mosquito curtains were a preventive of chills and therefore of malaria, little dreaming that it was mosquitoes they kept off and not mysterious chills or marsh miasms.

None of these observers, however, could suggest how the mosquito might convey fever to man.

"Laveran, Koch and Pfeiffer suggested that the mosquito might stand in the same relation to the malaria parasite as it stood to *Filaria nocturna*; but as to the particular phase of the parasite it subserved, and as to the exact way in which, the insect operated, they were silent."*

To follow with intelligence the subsequent development of this hypothesis, it will be necessary, first of all, to relate the history of the discovery of the actual malaria parasite.

* Tropical Diseases. By Patrick Manson, C.M.G., M.D., Revised Edition. Cassell & Co., 1907.

In 1849 Virchow stated that the essential pathological product of malaria was black pigment, or melanin, found in all the internal organs of the body, and which he realised, was due to the breaking down of the red corpuscles of the blood. In his investigations he must have seen this pigment in the malarial parasites but did not evidently realise what he had found. In 1880, Laveran, a French Army Surgeon, serving in Algiers, discovered certain amoeboid parasites living in the red corpuscles of men suffering from malaria. He noticed that in their growth these small organisms destroyed the red cells, and at the same time absorbed their colouring matter. Out of this colouring matter, black or brown granules, or rods, were formed, which could be seen in the parasites, and which subsequently were set free in the blood stream, by the disruption of the parasite itself, as it proceeded to the formation of spores.

Laveran had thus discovered the cause of the melanism found by Virchow 30 years before, and had solved to a large extent the problem of the nature of the causative agent of malaria.

For some years the discovery was looked at askance, especially by the Italian observers, who were not convinced that the bodies seen by Laveran were living, until their discoverer went to Rome and demonstrated the amoeboid motion of the parasite in fresh blood.

Subsequently the flagellar form of the parasite gave rise to controversy between the Italian and French observers, the former maintaining that this was a degeneration form, while the latter maintained that it was an attempt at further development.

Many workers both before and since have taken up the subject and similar bodies were studied and described in the blood of reptiles, birds, monkeys, bats, cattle and dogs by Ray Lankester, Danilewsky, Kruse, Labbé, Simon, Koch, Dionisi, Smith and Kilborne, Robertson, etc.

In human beings the parasites were closely studied by Golgi of Pavia, who was the first to describe clearly spore formation in the parasite in tertian and quartan agues, and to differentiate three species of parasites. His work was confirmed by Marchiafava and Celli in Italy, Vandyke Carter in Bombay, Osler, Thayer and MacCallum in America, Manson in England and Koch in Germany.

MacCallum made the important discovery that the flagellum was in reality a spermatozoon whose function was to penetrate and fertilise the female form of parasite.

In 1894, and more at length in the "Goulstonian Lectures" in 1896,* Manson propounded the theory that the malaria parasite must

* British Medical Journal, 8th December 1894, and 14th, 21st, 28th March 1896.

have two phases in its life, one in the body of a man, and the other in the body of some other living animal and connected in some way with the flagellated body which only appears in blood after it has left the body.

As no mode of exit from the human body by the ordinary channels seemed probable, he arrived at the conclusion that some blood-sucking insect was the definitive host where sexual reproduction would take place. This insect he "believed to be the mosquito, an insect whose habits seemed adapted for such a purpose, and whose distribution conformed to the well ascertained habits of malaria."* From observations made in China on the development of *Filaria nocturna* where he had found that one special species of mosquitoes only was involved, Manson also suggested that all mosquitoes would not carry malaria, but only certain kinds of them. Ross, of the Indian Medical Service, who happened to be at home on furlough when Manson made his original pronouncement, and stimulated by a personal interview with him, returned to India full of this new idea, and devoted himself with conspicuous energy and perseverance to discovering evidence of its truth or otherwise. In 1895 he demonstrated the fact that when a mosquito is fed on human blood containing crescent bodies, a large proportion of these latter become, in its stomach, globular in shape and throw out flagella which become detached and swim about in the fluid. In 1897 at Secunderabad his mosquito catcher brought him a new species of mosquito with spotted wings in whose stomach wall he found growing and developing a body he had never seen before, and inside which he saw malarial pigment. He at once realised that he had found the first stage in the further development of the sexual cycle of the malarial parasite. To his chagrin he could not get any more of these spotted wing mosquitoes and owing to the exigencies of the service was moved to a non-malarious station. However the Government was so impressed by his researches that he was, in 1898, put on special duty and given a Laboratory in Calcutta wherein to work. There was no malaria in Calcutta at that time, but nothing daunted, Ross set to work on the malaria of birds. By working with sparrows affected with proteosoma, a parasite similar to that causing malaria in man, he proved that when ingested by a particular species of culex, the proteosoma penetrates the wall of the stomach of the insect and grows and sporulates there. The spores being set free in the body cavity of the mosquito by the rupture of the parent cell, find their way into the salivary or poison gland in the thorax of the insect, from which they are injected into a fresh bird along with the venom when next a bite is given.

By painstaking experiment he proved that fresh uninfected birds could be infected by the bites of mosquitoes which some days previously

* Tropical Diseases, 1903, p. 18.

had been fed on proteosoma-infected blood. For the case of sparrows, then Manson's theory held good in every respect. A gap in Ross' work was filled by MacCallum who showed that the flagellum after becoming free in the stomach of the mosquito, enters a female parasite and impregnates it. The cell then becomes a pointed vermicule endowed with locomotion which enables it to reach and penetrate the stomach wall of the mosquito, there to undergo the next stage of development.

Ross' discoveries were quickly confirmed by Daniels, who was sent to Calcutta by the Royal Society of London for that purpose. Grassi, in Italy, following in Ross' wake, proved that the malaria parasite of man when taken in by *Anopheles maculipennis* passes through precisely the same stages, and in conjunction with Bignami performed the experiment of infecting a healthy man with malaria by exposing him to the bites of mosquitoes carrying spores in their salivary glands. Finally Manson obtained live mosquitoes from Rome which had been fed on a case of Benign Tertian ague, and succeeded, by means of their bites, in infecting two young men in London who had never been out of England.

By the painstaking labour of these and many other workers, Manson's brilliant hypothesis was proved, and the mosquito-malaria theory passed from the region of imagination to that of fact.

Having set forth briefly the history of the discovery of the cause of malaria and its mode of propagation, it is necessary to turn to a consideration of the life history of the parasite itself.

The malarial parasites belong to the Protozoa, the lowest division of the Animal Kingdom, and to the class Sporozoa, which, as the name indicates, are propagated by means of spores. They are unicellular animal parasites living at some period of their lives in the cells or tissues of their hosts.

The life history of the sporozoon may be divided into four stages, and before proceeding to the particular description of the malaria parasites, it may be well to recount these briefly :—

1ST STAGE.—The Sporozoite.—The parasite at this stage is a free, often slightly motile organism. It is usually pointed at one end to facilitate its entrance into one of the cells of the host.

2ND STAGE.—The Schizonts.—Having entered into the proper cell of its host it begins to grow at the expense of that cell, pushing aside the nucleus and in many cases extruding it. The parasite grows at the expense of the cell it has entered, absorbing its substance as nutriment and ultimately reducing it to a mere enclosing shell. During this time the schizont has divided into a number of smaller individuals called merozoites, which, on the bursting of the enclosing shell, become

free and rapidly enter new cells of the host to repeat the process of multiplication described above. Should they not succeed in entering fresh cells, they speedily become engulfed by leucocytes or otherwise perish.

This circle of evolution by splitting or schizogony may continue for many generations, and provides for the continuance of the organism in the original host, but it is evident that if no other means of propagation existed, the life of the parasite would come to an end with the death of its host.

In a study of the Infusoria, Maupas found that it appeared as if each organism started with an amount of potential energy sufficient to carry it on by means of asexual multiplication for many generations, but that this energy became gradually dissipated and could only be renewed by a process of sexual conjugation between two cells. After this conjugation, the progeny was able once more to carry on the process of simple division for many more generations, after which the renewing process had again to be applied.

The expenditure of the original energy will, of course, be hastened by any adverse circumstance, such as scarcity of food, or the increasing resistance of the host to the invasion of its system, resulting in the formation of anti-bodies or poisons inimical to the growth of the parasite.

In a similar way the organisms we are considering proceed to the formation of sexual forms when their original stock of potential energy is running low. The schizont instead of proceeding to the formation of simple merozoites, becomes a gametocyte within which the gamete or sexual form is developed and thus is reached the

3RD STAGE.—The Gametes.

The first stages in the formation of the sexual forms cannot be distinguished from the young parasites which will break up into merozoites. But when the gametocyte is large enough to escape from the cell of its host two forms can be distinguished, *viz.*—a male cell with a large nucleus and hyaline matrix and a female form with a nucleus which does not enlarge and with granular cell contents. As the male cell is usually the smaller, it has been called the microgametocyte while the female one is called macro-gametocyte. As development proceeds the nucleus of the microgametocyte breaks up into several parts, each of which has a small portion of cytoplasm round it, and forms the actual sperm cell or male element or microgamete. These being actively motile break away from the microgametocyte and approaching a macrogamete or female form, enter it. This conju-

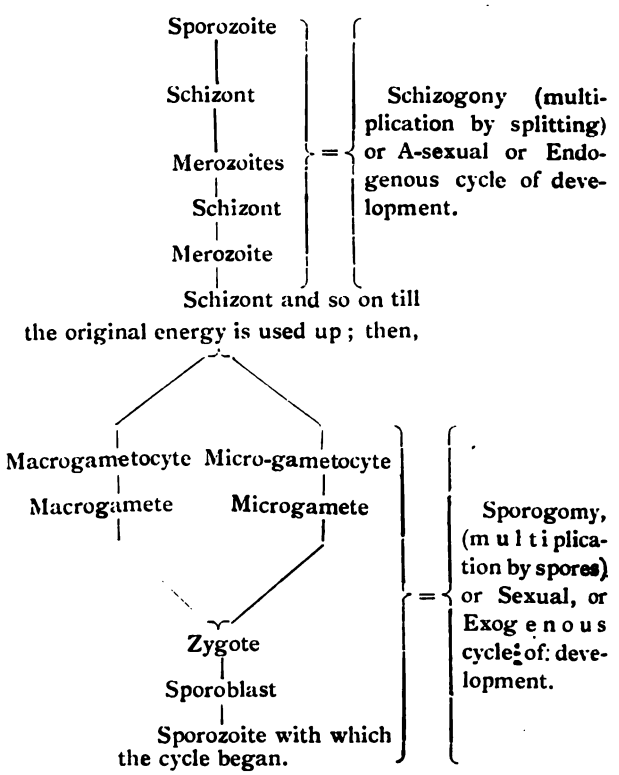
gation, or zygosis results in the formation of a zygote which brings us to the

4TH STAGE.—The development of the Zygote into the Sporozoite.

In many cases the Zygote which is the form fitted for life in a new host, surrounds itself with a cyst, when it is called an oocyst.

Within it the nucleus divides, each division being surrounded by a small amount of cell protoplasm and sometimes by a cyst wall. These divisions or sporoblasts then begin to divide up into a number of thread-like objects called sporozoites which eventually become free and begin the cycle once more in a new host.

The following scheme shows diagrammatically the life cycle of a Sporozoon :—



Such is briefly the life history of a typical sporozoon, and it is now necessary to see how far and in what respects it serves to illustrate that of the Malaria parasites as they affect man.

The malaria parasites belong to the order Hæmosporidiida of the sub-class Teleosporidia of the Sporozoa.

The Hæmosporidiida may be divided into three families, *viz.*—

Family I Hæmogregarinidæ
,, II Piroplasmidæ
,, III Hæmamoebidæ.

The last alone concerns us here, as to this family belong the three forms of the malaria parasite.

The majority, if not all the members of this family, produce pigment (the melanin of Virchow) within their protoplasm during the schizogenous cycle.

The sporogenous cycle is passed in the bodies of the culicidæ or mosquitoes.

The species that affect man are the following :—

Hæmamoeba vivax ; the parasite of Benign Tertian Fever.
Hæmamoeba malariæ ; ,, ,, Quartan Fever.
Hæmamoeba praecox ; ,, ,, Malignant Tertian Fever.

They may be distinguished from one another on histological, morphological and clinical grounds, but for the purposes of the present paper a sketch of the life history of *H. Vivax* must suffice.

The sporozoite is found in the cœlum (*i.e.*, body-cavity) or salivary gland of an infected anopheles mosquito. It is an elongated spindle-shaped body about 14 μ long by 1 μ broad with a nucleus of closely packed chromatin granules. They are found free in the salivary secretion of the mosquito, and are injected into man along with it when he is bitten. They must at once find their way into a red corpuscle, otherwise they are engulfed and destroyed by the leucocytes.

No one has as yet seen motion in them, but it is certain they must be motile otherwise they could not penetrate the red cells. After 8 or 10 days the sporozoites may be found in the blood as young malarial parasites or schizonts, appearing as small clear rings about one-third of the diameter of a red blood corpuscle and endowed with amoeboid motion. In specimens treated by Romanowsky's method of differential staining the parasite is seen to consist of three portions, *viz.*, a blue ring with at one side a bright ruby-coloured spot and a much paler or unstained spot near it. The blue ring is the protoplasm, the pale or unstained portion is the nucleus while the red chromatic spot is the nucleolus. As the parasite increases it absorbs the hæmoglobin of the red cell and converts it into pigment granules, which, 24 hours after the commencement of the fever, may be seen in active movement.

The amoeboid movements are now very active and the chromatin in the nucleus shows signs of division. At the end of 48 hours, the parasite has grown so as to occupy nearly the whole of the red corpuscle, pigment granules are abundantly present, amoeboid movements are less marked and the nucleus is not so well defined. The chromatin becomes much divided and passes into the protoplasm of the parasite, which arranges itself round these nodules so as to form spores or merozoites to the number of 15 or 20. In the centre is collected the cytoplasm not used up in spore formation and in it all the pigment is seen. This forms the residual body, sphere de reliquat or restkorper.

The red corpuscle which has been reduced to a mere shell, now bursts and liberates the merozoites, which at once seek refuge from the leucocytes, by entering fresh red cells wherein to repeat this the schizogenous cycle.

After a certain number of such generations have been evolved, the parasite proceeds to the formation of the Sporogenous cycle.

Instead of the normal schizont, one may see one containing a relatively large amount of chromatin often arranged in filaments rather than granules though the actual body is smaller than before. The nucleus does not enlarge and pigment is scattered through the protoplasm, which appears hyaline. This is the male form of parasite or microgametocyte.

The macrogametocyte or female form is much larger than the microgametocyte, exceeding the normal schizont in size and formed of granular protoplasm. The protoplasm of the parasite stains deeply with basic dyes, the nucleus is distinct, the chromatin is relatively small in quantity and the pigment is collected round the nucleus. The parasite now escapes from the shrivelled red cell, the remains of which may be seen as two rounded knobs, which have been taken by some to be polar bodies.

If now the blood containing these gametocytes be taken into the stomach of an anopheles mosquito, further development takes place, if not, they perish in some hitherto unexplained manner.

The further development consists in the formation of flagella, the microgametes or sperm cells, by the male parasite and the impregnation of the female form by one of these.

Before the flagella are thrown out, the pigment may be seen in violent agitation and tending towards the centre of the parasite, while the chromatin proceeds towards the periphery. Suddenly three or four filamentous structures, of a length equal to 3 or 4 times the breadth of

a red corpuscle, are seen projected from the sphere and lashing wildly about. Each contains one or more specks of chromatin. After a little they break off from the sphere and swim off with an eel-like motion in search of a macrogamete.

The macrogamete is entered by one microgamete, but not more; conjugation or zygosis being thus accomplished.

The actual penetration of the macrogamete by the male element in the case of the human malaria parasite was first seen by MacCallum in America, but it has been seen many times since in halteridium, the malaria parasite of birds. For a short time after zygosis the parasite remains quiescent. Shortly however it becomes elongated and lance-shaped and is sometimes called the vermicule or more properly the zygote.

It has not been seen to be endowed with motion but somehow, by the kneading motion of the stomach perhaps, it soon arrives at the stomach wall which it penetrates by passing between the epithelial cells into the muscular layer.

This must take place within 36 hours of ingestion, for by that time, the contents of the mosquito's stomach are passed out. In 30 to 40 hours the zygote appears pushing up the outer epithelial covering of the stomach and then becomes encysted, forming an oocyst. The nucleus proceeds to divide as the oocyst enlarges, and the protoplasm gathers round the separate divisions, forming 12 sporoblasts. As the oocyst increases in size, these nuclei divide into a large number of daughter nuclei which gather at the periphery of each sporoblast and form the sporozoites; about 8 days after the mosquito has fed on infected blood, the oocyst bursts and sets free in the cœlum or body-cavity of the mosquito a swarm of sporozoites. These filiform sporozoites make their way or are carried by the circulation to the salivary glands of the mosquito, and as described above are injected along with the salivary secretion into the body of an animal or man. Should the man prove susceptible, these sexually-formed sporozoites develop into benign tertian parasites, thus completing the sporogenous cycle.

The two other species of malaria parasites, *viz.* :—the Quartan and Malignant Tertian, resemble in the main features of their life-history the course described above, and it would take too much time to detail the differences on which the specific distinction rests.

Enough has been said to explain the main points, and to make clear I trust, the wonderful advance in knowledge made within the last dozen years, and it is interesting to us in India to realize that the

man who furnished the key to enlock this storehouse of knowledge was Ronald Ross, a member of the Indian Medical Service.

Note.—For much of the above I am indebted to "The Ætiology of Malaria." By Captain William Glen Liston, M.B. (Glasg.), Indian Medical Service, being a thesis submitted for the degree of M.D. of Glasgow University in 1902; and who was awarded the Bellahouston Gold Medal for excellence.

2.—TRYPANOSOMIASIS.

Disease in the lower animals caused by the presence of trypanosomes in the blood, has for 20 years been familiar to us in India, but it is only so lately as 1901 that it became known that man might be similarly affected.

It has still more recently (1903) been ascertained that sleeping sickness is due to this parasite, and as this fell disease has marched across the African continent from its original endemic home on the West Coast, and is now raging in Uganda, it behoves us in India to know something about it, in case it should be brought to our own doors by labourers returning from the Uganda railway works. The Government of India have been alive to this contingency, and for the last eighteen months an officer of the Indian Medical Service has been studying the disease at Entebbe.

Trypanosomes belong to the Flagellata, a sub-class of the Mastigophora, which is a division of the Protozoa. In form, they are elongated, pointed at both ends, one of which is furnished with a flagellum, and they have a long fin-like undulating membrane along one side.

They measure from twice to three times the length of a red corpuscle, and are very vigorous in their movements, lashing about and tossing the red cells on one side with the greatest ease. They advance with a twisting motion, and with the flagellum foremost.

When stained by the Romanowsky method they are seen to possess a large nucleus with much chromatin, generally situated in the anterior half of the body, a bright red centrosome near the posterior end, connected by a red thread-like line with the free edge of the undulating membrane along the fringe of which it runs to be prolonged into the flagellum at the front end of the parasite. The body of the parasite stains blue, and may be homogeneous or granular.

Trypanosomes do not form pigment like the malaria parasites, and therefore probably derive their nutriment from the plasma in which they swim, and not from the hœmoglobin of the red cells. They increase by longitudinal fission, but at present not much is known about their life history.

The diseases caused by trypanosomes in man and animals are characterised by irregular fever, often with remissions, a chronic course and

production of anæmia, great weakness, localised œdema with patches of erythema, and enlargement of the lymphatic glands and spleen.

THE TSETSE-FLY DISEASE—or Nagana as it is called by the Natives in Africa,—has been well known since the days of David Livingstone. It is widely spread over the African continent, reaching as far up as Somaliland on the East Coast, and to Senegambia on the West, the Congo basin, Lake Chad and even as far as Southern Algeria.

The causative agent was discovered by Bruce in 1895 in Natal and is now known as *Trypansoma brucei*, though whether it will retain this name depends on its identity or otherwise with *T. evansi*, the previously discovered causative agent of Surra. They appear to be identical morphologically, and are pathogenic for the same animals. Koch* working in Africa and Berlin, and Musgrave† working in the Philippines, have come to the conclusion that they are the same, while Laveran and Mesnil believe them to be different.

The parasites are known by the bluntness of the hinder end and by the situation of the centrosome which is quite close to the end.

The tsetse-fly disease attacks all domestic animals, though donkeys, sheep and goats show a considerable resistance.

The infection,—as Bruce pointed out—is conveyed from animal to animal by a species of stinging fly called *Glossina Morsitans*. The mechanism seems to be mere transference, for it was found that if flies were kept for more than 48 hours after a feed of infective blood, their bites proved harmless.

Bruce therefore thinks that it is improbable that any metamorphosis, similar to that undergone by the malaria parasite in the mosquito, takes place in the body of the tsetse-fly.

Trypanosomes taken from the stomach of the tsetse-fly at regular intervals after feeding also show no signs of any such change. Koch, however, suggests that some multiplication at least may occur, for the usual source of infection being the wild game of Africa in whose blood Bruce found only very few trypanosomes, it is probable that the fly can only suck in one or two at a meal, which would make the chance of infection very small for any fresh animal bitten by the fly, unless some such provision existed.

SURRA has been well-known as a scourge of cavalry regiments and transport corps for many years in India, and no cure for it is known.

* Remarks on Trypanosome Diseases; By Professor R. Koch, M.D., Berlin; British Medical Journal, 26th November 1904.

† Report on Trypanosoma and Trypanosomiasis with special reference to Surra in the Philippine Islands, By W. E. Musgrave, M.D., and Moses T. Clegg. Report of the Superintendent of Government Laboratories in the Philippine Islands for the year ending September 1, 1903.

It is found specially in the North of India, but lately in Bombay City many horses have died from this disease.

It is also found in Persia, Burma, the Phillipine Islands and Mauritius. In the latter country it has only recently been imported from India and has caused great havoc among cattle there. It attacks horses, camels and elephants in India, but is not so severe in cattle.

The trypanosome was discovered by Veterinary Surgeon Evans in 1881, and has been known since then as *T. evansi.*

Rogers* who was in charge of the Veterinary laboratory at Muktesar in 1899 proved by experiment that the disease could be transmitted by the bites of flies of the family Tabanus from the horse to the dog and from dog to dog.

It is no doubt in this way that the disease is mainly spread from horse to horse in cavalry regiments, though in the case of Tonga lines other factors are present, such as exchange of bits from one pony to another where sores in the mouth exist, and the spread by common domestic flies from one open wound to another. This latter mode of transmission has been proved by Musgrave and Clegg† in the Philippines in the case of dogs and monkeys.

The same experimenters report that Surra may be conveyed from dog to dog, from rat to rat, and from rat to dog by means of fleas.

Other trypanosome diseases are Mal de Caderas in South America,—a disease mainly of horses, which is probably identical with Tsetse-fly disease, and which, like it, is spread by biting flies, in this case belonging to the genus *Stomoxys.*

In Africa cattle are afflicted by a disease caused by the *T. theileri,* easily distinguished by its large size and by being pathogenic for cattle only.

Rats in this country are largely infected by a trypanosome disease which seems to do them little harm, and the parasite, *T. lewisi,* appears to differ morphologically and in pathogenicity from the Surra and Nagana parasites.

The last trypanosome disease which it is proposed to deal with here is Sleeping Sickness.

The first to record the presence of trypanosomes in human blood was Nepveu,‡ who described it amongst other flagellated blood parasites found by him when working at Malaria in Algiers. He says: §

* Proceedings Royal Society, Vol. lxviii.

† Report of the Superintendent of Government Laboratories in Philippines, 1903.

‡ Memoirs de la Sociéte de Biologie, 1891 and 1898.

§ Quoted in Report of Government Laboratories, Philippine Islands, 1903.

"Trypanosoma must be classed among the parasites of human blood;" but he failed apparently to connect it with any special train of symptoms or pathological state in the patients in whose blood he found it. In 1901, Dr. Forde had a European under his treatment in Gambia, in whose blood he found a parasite which greatly puzzled him. He showed this to Dr. J. Everett Dutton, of the Liverpool School of Tropical Medicine, who happened to be there at the time. Dutton at once recognised the parasite as a Trypanosoma, and subsequently described it fully in the British Medical Journal* and Reports of the Thompson Yates Laboratory,† Liverpool, in 1902. There he says: "In contrasting the parasite with similar parasites in animals, it approaches most nearly in its morphology *Tr. brucei*. It is the smallest of all described mammalian Trypanosomes; its average length is 22 microns, including the flagellum; its breadth is greater in proportion to its length than in other parasites. The posterior part as measured from the micronucleus to the extreme tip is short and characteristic for this parasite."

From a consideration of the fact that man does not suffer from trypanosomiasis in districts where Nagana sweeps off all domestic animals and where he is not exempt from the bites of the Tsetse-fly, and that this trypanosoma causes definite symptoms in the human being, Dutton considers that it is a new species which he names *Trypanosoma gambiense*.

The symptoms observed are, long continued, irregular fever, with intervals of apparent health, anæmia, loss of strength, emaciation, local œdematous swellings, and erythema more or less fleeting.

Following on the publication of this discovery, other cases of human trypanosomiasis have been reported, but they remained more or less pathological curiosities until it was discovered in 1903 that trypanosomes were present in cases of the dreaded Sleeping Sickness. The Royal Society of London had sent a Commission to study the Sleeping Sickness in Uganda, where it had been introduced by the Emin Pasha Expedition from the Congo in 1896. It was one of the members of this Commission—Castellani, now Government Bacteriologist in Colombo—who first saw the trypanosomes in the centrifugalised cerebrospinal fluid. He, however, thought this was an accidental occurrence not connected with Sleeping Sickness, as he at first believed that disease to be due to a diplo-coccus,‡ similar to that found by the Portuguese Government Commission in cases of Sleeping Sickness in Loanda and deemed causative by them.

* British Medical Journal, 20th September 1902, p. 881.
† Vol. IV, Part ii, 1902, p. 455.
‡ British Medical Journal, 20th August 1904, p. 367.

A second Commission was sent to Uganda by the Royal Society under Colonel Bruce, R.A.M.C., * and he soon found that trypanosomes and not the diplococcus were the cause of the disease and that they were conveyed from one man to another by the *Glossina palpalis*, a stinging fly belonging to the same genus as the Tsetse-fly.

According to the latest reports, Colonel Bruce † believes that :—

1. The trypanosoma found in cases from the West Coast of Africa and in cases of Sleeping Sickness in Uganda are identical.

2. The trypanosoma fever described by Forde, Dutton and others is the first stage of Sleeping Sickness.

3. Neither the European nor the Native African are immune to the disease.

4. The prognosis is bad, for, as far as Bruce knows, no recoveries have taken place.

   (*N.B.*—Manson ‡ reports a case which had trypanosomes three years ago as now recovered, and Dutton, Todd and Christy § confirm this.)

   The incubation period may last for years.

5. No evidence has been brought forward to show that any of the lower animals take any important part in the spread of human trypanosomiasis.

6. The parasite is conveyed from one man to another by means of a biting fly, the *Glossina palpalis*, and the distribution of the disease corresponds with that of this fly. Where no flies of this species existed, there no Sleeping Sickness was found.

7. Several species of glossina are able to convey the infection from the sick to the healthy, and *Glossina palpalis* is able also to convey the trypanosome of Nagana from one animal to another.

8. There is no proof that other genera of biting flies, such as Stomoxys and Tabanus, carry infection under natural conditions.

9. There is no proof that any metamorphosis of the trypanosome, similar to that which takes place in the case of the

* British Medical Journal, 27th December 1902, p. 1964.
† British Medical Journal, 21st November 1903, p. 1343.
‡ British Medical Journal, 20th August 1904, p. 370.
§ British Medical Journal, 20th August 1904, p. 372.

malarial parasite in the body of the mosquito, occurs in the *Glossina palpalis*, the transference appearing to be purely mechanical.

10. All stages in the development of the human trypanosome appear to take place in the body of the infected man.

I have gone thus particularly into the case of human trypanosomiasis, because it appears more than probable that cases of Sleeping Sickness may at no distant date be imported into India from Uganda, and it behoves us to be prepared to meet it. Rogers* has lately drawn attention to the possibility that species of the Tabanidæ found in India may be capable of acting as the transmitting agency in the case of *Trypanosoma gambiense* as he has found it to be in Surra.

Should this unhappily prove to be the case, what can be done to protect the country from its ravages ? We cannot slaughter the diseased men to get rid of the source of infection, as was lately done with much success in the case of infected animals in Java, when Surra first appeared there. We could not isolate in hospitals all persons with trypanosomes in their blood, for it is just the persons with no symptoms to call attention to their condition that would serve to feed the stinging flies with the infection.

What can be done, however, is to watch carefully all coolies returning from Uganda, to search for enlarged glands and to examine their blood to make sure that no trypanosomes exist in them and to keep such persons under observation in camps at the ports of arrival till such observations are completed.

Should trypanosomes be present in the blood or lymph glands—for Greig† has shown recently that in the swollen glands they become evident before they are found in the blood—then we must try some of the new drugs said to be effective in destroying them. Ehrlich has discovered a drug which he called Trypanroth which is said to be effective in killing trypanosomes in the blood, and Laveran and the Liverpool School of Tropical Medicine have reported that a combination of this drug and arsenic is still more effective.

Let us trust that this remedy may prove as effective as it promises.

Another step that should be taken at once is a study of the life history of the Tabanidæ in India, to see whether some way may not be found of controlling them in their native haunts, or of exterminating them altogether. That this is not hopeless can be gathered from the undoubted fact that Tsetse-flies disappear from their haunts in Africa whenever the wild game on which they feed are exterminated.

* British Medical Journal, 26th November 1904, p. 1454.

† Lancet, 25th February 1902, p. 534.

None of the entomologists in India, to whom I have applied, have been able to say whether flies of the genus Stomoxys or Glassina are found in India. This should also be looked into.*

3. THE PARASITE OF SPLENOMEGALY.

The last of the parasites which it is proposed to consider in this paper, was discovered less than two years ago, but bids fair to rank with the malarial parasite in importance to practitioners in India.

Its discovery is interesting as showing how one advance in science leads to another. The discovery of trypanosomes in the blood of men in Gambia by Forde and Dutton led Major W. B. Leishman, R.A.M.C., to consider whether it might not be possible that disease caused by these parasites existed also in India.

Major Leishman was then serving at Netley, and he noticed among the invalids arriving from India in 1900 a series of cases from Dum-Dum, of extreme cachexia, with "an irregularly intermittent type of fever, grave anæmia, progressive muscular atrophy, and great enlargement of the spleen."† No malaria parasites were ever found in these cases, nor could any cultures be obtained from the spleen after death. In spleen smears, however, stained by Romanowsky methods, he found a large number of small round or oval bodies 2 to 3 μ in diameter, containing a circular mass of chromatin, "applied to which, though apparently not in direct connection with it, was a much smaller chromatin mass, usually in the form of a short rod set perpendicularly or at a tangent to the circumference of the larger mass." Major Leishman was at first quite at a loss to account for the meaning of this appearance, but eventually from reading Dutton's paper and after working with the trypanosome of Nagana, came to the conclusion that it was due to *post mortem* alteration of some species of trypanosome, the bodies of which had shrunk so as to draw the nucleus and centrosome together so producing the above effect, while the flagellum and membrane had disappeared.

He, therefore, put forward as a suggestion that this "Dum-Dum fever" as he called it might be due to trypanosomes.

This paper, published in the British Medical Journal of 30th May 1903, had no sooner reached India than it attracted the attention of Captain (now Major) C. Donovan,‡ I.M.S., Madras, who had been equally puzzled by the presence of similar bodies found in spleen

* Since this was in type, the Entomologist to the Government of India reports in a private letter to the writer, that he has found a species of Stomoxys in Assam. Probably it is present in other parts as well.

† On the Possibility of the Occurrence of Trypanosomiasis in India. By Major W. B. Leishman, R.A.M.C., British Medical Journal, May 30th, 1903.

‡ British Medical Journal, 11th July 1903, p. 79.

smears from native patients who were said to have died of chronic malaria. On the 17th of June 1903 he proceeded to puncture the spleen of a patient suffering from irregular fever, in whose blood no malarial parasites could be discovered, "and found identical bodies in the blood from the spleen, thus removing any doubt there was as to the products being due to *post mortem* changes."

He adds, "there was nothing resembling trypanosomata in the peripheral blood of the boy in question."

Specimens from all these cases were then sent by Major Donovan to Major R. Ross, Professor of Tropical Medicine, University of Liverpool, and to Laveran and Mesnil of the Pasteur Institute, Paris.

Major Ross published a preliminary report on these specimens in November 1903,* in which he says that the bodies agree exactly with Leishman's description of the appearances observed in the Dum-Dum case, but argues that they cannot be degenerated or involuted trypanosomes because there are no remains of flagella present and the nucleus and centrosome seem much more regularly grouped together than would be the case were they really those of trypanosomes.

Also the specimens made from the spleen of a living patient should show unaltered trypanosomes as *post mortem* changes are in this case excluded.

He suggested that we have to do with a new parasite which may prove to be the causative agent of the splenic cachexia and *kala azar* in India.

On November 28th, Ross† published "Further Notes on Leishman's Bodies," in which he describes them as existing "under two distinct conditions, namely, (*a*) free, and (*b*) embedded, to the number of one up to twelve, in a matrix." This matrix stains very faintly, much more faintly than red or white corpuscles, and there is no suggestion of the hæmoglobin of the red corpuscles or of the nucleus of the white cells to be seen in it. He cannot find any evidence of the presence of the parasites in the red cells. He therefore pronounces against the new parasite being a piroplasma living in the red cells, and suggests that the matrix is a relic of the parent form, the bodies themselves being spores. He believes them to belong to the sporozoa, and proposes to create a new genus *Leishmania*, for them, and to call this species *Leishmania donovani*.

Laveran ‡ reported on the specimens sent him by Donovan, to the effect that they belonged to the piroplasmodæ, and proposed the name

* British Medical Journal, 14th November 1903, p. 1261.
† British Medical Journal, 28th November, p. 1401.
‡ Bull. Acad. Medecine, Séance du 3 November 1903, p. 238.

Piroplasma donovani. In a subsequent paper, read on 7th December 1903,* he describes them as "small piriform bodies, oval or spherical, free or included in the red cells. The piriform bodies which Ross does not describe are in the majority in certain of our preparations; their form recalls entirely the bodies most typical of *Piroplasma bigeminun* of Texas fever." He rejects Ross' theory that the parasites do not exist in the red cells, and argues against his idea that they are contained in a matrix, declaring that this latter is an altered red cell. He likewise does not agree with Leishman's views that they are trypanosomes.

Manson and Low,† of the London School of Tropical Medicine, next found the bodies in the case of a tea-planter from the Darjeeling Terai. From a study of preparations made by spleen-puncture they describe the same appearances as the previous observers had noted, but regard the matrix of Ross as part of the parasite and secreted by it, and refer to it as a "zooglea mass." They also give reasons for disbelieving Laveran's contention that the bodies are parasites of the red corpuscles.

Realising the importance of the matter, the Government of India placed Lieut. Christophers, I.M.S., on special duty, and deputed him to Madras to investigate the nature of the parasites discovered there by Captain Donovan.

He has published two exhaustive and valuable reports‡ on the disease and its parasite, which may be summarised as follows :—

The parasites are found in cases formerly designated "Chronic Malarial Cachexia" which abound in Black Town, Madras.

The principal signs and symptoms of the disease are : (1) great enlargement of the spleen ; (2) emaciation ; (3) irregular fever ; (4) abdominal symptoms, such as diarrhœa and dysentery with blood and mucus in the motions ; (5) a tendency to *noma* and local gangrenes ; (6) the frequent presence of a papular eruption, with subsequent ulceration of the skin ; and (7) hæmorrhages in various situations and petechiæ of serous membranes.

These cases invariably end in death.

The bodies themselves are clearly outlined, having a distinct cuticle. They occur free on the slide or embedded in a protoplasmic substance singly or in groups of as many as 6 or 7 or more. They are round, oval, or pear-shaped, and measure from 2 to 35 micro-millimetres in

* Comptes rendus des séances de L'Académie des Sciences, t. CXXXVII., p. 987.

† British Medical Journal, 23rd January 1904, p. 183.

‡ Scientific Memoirs by the Officers of the Medical and Sanitary Departments of the Government of India, Nos. 8 and 11. Calcutta : Office of the Superintendent of Government Printing, India, 1904.

diameter. The larger forms "much resemble a cockle-shell in shape," and this Christophers regards as the typical shape. "Except in very rare small forms which show only a single chromatin mass, the bodies invariably possess two chromatin masses—a large one staining lightly and a small one staining intensely with the red colouring matter of Romanowsky's stain. The two chromatin masses are usually situated opposite to each other in the shorter axis of the parasite."

The small chromatin mass is rod-shaped, but may appear as a dot only. From it, in the larger parasites especially, may be seen extending a dark line at right angles to it and ending at a distance from the larger chromatin mass. One or two vacuoles may be present, and the line of protoplasm left between them sometimes forms a "tail," joining the two chromatin masses.

The general shape of the parasite is that of a pair of cockle-shells, the larger chromatin mass lying in the thick part of the shell cavity and the small rod towards the edge of the imaginary valves, but placed across the mouth of the shell, as it were, not parallel to the valves. The larger chromatin mass is often divided into two lobes or even two separate bodies, one lying in each valve of the imaginary shell.

Division appears to be by longitudinal fission, the larger mass dividing first and the smaller one last. Division into 3 or 6 bodies is sometimes seen, the larger chromatin masses outside and the smaller ones towards centre. Quite recently Christophers informs me that in citrated blood he has been able to observe after this division the formation of a flagellum.* This observation would place the parasites among the flagellata, the family which includes the trypanosomata also.

The relation of these parasites to the tissues of the host is of extreme interest, and has given rise to much controversy.

Laveran and Mesnil, working with fixed slides sent by Donovan, maintain that the parasites are endocorpuscular, *i.e.*, that the disease is one similar to the malarial infection, the red cells of the blood being the chief sufferers. Ross, on the other hand, cannot satisfy himself that the red cells are ever infected, believing that the cell in which the parasite is found is not a red blood cell, but a matrix.

Manson and Low agree with this opinion in so far as the non-infection of the red corpuscle is concerned, but call the substance in which the parasite is embedded a zooglea mass.

* A specimen showing this very clearly was shown under a microscope in the library.

Christophers, however, working with fresh material and after a study of sections of the spleen and other organs, has shown good ground for believing that this embedding substance is really an endothelial cell or macrophage. He says: "The careful study of sections of the spleen and liver in cases of infection with the new parasite has led me to conclude that the macrophages are derived from the vascular endothelium and that they represent a final stage of endothelium cells which have become more and more modified and distended with included parasites."

In films it is easy to trace the rupture of these engorged cells, and the consequent liberation of the contained bodies, and the formation of small bodies simulating red cells with included parasites.

The parasites appear not to be harmed or digested by these endothelial cells, and, doubtless, when set free by their rupture, again enter fresh macrophages to renew the cycle of multiplication.

The process then in this affection is an endothelial infection, and not a blood disease in the sense that malaria is, and it may be compared with certain chronic septicæmic diseases, where it is difficult to find the organism in the peripheral circulation.

In Malta fever, for instance, it is generally necessary to puncture the spleen to find the micro-organism.

The view that the disease is not a blood disease, but an endothelial one, removes a difficulty in accounting for the presence of the parasite in the granulomatous ulcers so often found in the intestines in this malady. It also prepares one to believe that the parasites described by Wright * as present in Delhi Boil are the same as those found in this disease. It was the publication by Wright of this paper, with the beautiful photographs accompanying it, that induced Donovan to search for ulcers and papules in his cases, and led to his discovery of the bodies in these situations.

It is worthy of note that Cunningham described these very organisms in Delhi Boil 20 years ago, and was of opinion that they might be the cause of the disease.† This observation has been confirmed by Captain S. P. James, I.M.S.‡

In conclusion, it may be said that the disease manifests itself in two forms—one a local lesion, tropical ulcer; and the other a chronic endothelial disease (septicæmia), the so-called malarial cachexia of some parts of India, for we must not jump to the conclusion that

* Wright, Protozoa in a case of Tropical Ulcer (Delhi Sore). The Journal of Medical Research, Vol. X., No. 3 (New Series Vol. V., No. 3), December 1903.

† Scientific Memoirs. By the Medical Officers of the Army of India, Calcutta, 1885.

‡ British Medical Journal, 17th September 1904, p. 655.

malarial cachexia does not exist, or that all such cases in whatever part of the country they may be found are due to the Leishman Donovan parasite.

The bodies are very numerous in the spleen, liver, and bone marrow, and in lesser numbers in the lungs, testes and kidneys.

In these situations they are found in cells of an endothelial nature (macrophages) which may be crowded with the bodies, and also in the leucocytes. They are present in large numbers in the granulation tissue of the intestinal ulcers and in smaller numbers in the skin ulcers and papules. The bodies may be found in leucocytes in the peripheral blood, but not, according to Christophers, in the red cells.

Lastly, it is reported by Rogers* and Bentley that the parasites are present in the cachexial cases from Assam, so well known there under the name of *Kala Azar.*

The former officer likewise reports that he has been able to cultivate the parasites in citrated blood kept at a temperature of 22° C. The bodies multiplied, and showed many division forms. He says: "Within the last few days in two of my cultures unmistakable "trypanosomata have appeared, together with smaller pear-shaped "flagellated bodies like those described by Plimmer in Tsetse-fly "disease, and other intermediate forms."

The drawings accompanying this paper show bodies very like trypanosomes, and one flagellated form exactly like the forms in Christopher's slides, so whether the former is a further development or not remains to be seen.

I must now bring this paper to an end, for it has far exceeded the length originally intended. What I have said, however, will convince the reader that the Indian Medical Service is maintaining its old traditions of being ever in the van of scientific progress, for we find that many of the men who have made a name for themselves in India have belonged to that honourable service, and let us hope this may long continue.

In the field of Natural History they have specially distinguished themselves, and it seems certain that the disease problems of the future will largely lie—in the tropics at least—in this branch of Medical Science. It becomes more and more clear that the medical man in India must know Natural History well, if he is to attain to the front rank of his profession.

* British Medical Journal, September 17th, pp. 645 and 653.

Chairman's Remarks.

The Chairman, Rev. Dr. D. Mackichan, said : In rising to propose that you offer to Colonel Bannerman your cordial acknowledgments, I should like to be permitted to offer a few remarks suggested by the paper you have just listened to and the circumstances under which it has been presented to the Society.

We are reminded by the reading of this learned and attractive paper of the comprehensive aims of the first founders of the Society which is now celebrating its centenary. These aims embraced a very varied field of investigation and learned research, and although in the course of the century through the establishment of other societies and the necessity for specialization in scientific labour the main work of this Society has been predominantly in the region of Oriental antiquities, it is fitting that we should be reminded by the character of this evening's session of the original aim of the founders.

We are impressed as we think of this by two things—first, by the power of imagination and foresight the founders of the Society displayed ; and, secondly, by the extent to which their successors have come short of these ancient ideals. In the department of experimental investigation this is specially noteworthy.

India has contributed little to pure science in the field of physical research ; yet it is interesting to learn that Lord Raleigh by unearthing an ancient paper contributed to the Royal Society by Mr. Waterston, an engineer of this port, has secured to Western India the credit of the first statement of a fundamental law of Thermodynamics.

In more recent times Professor Bose, of Calcutta, has brought to his city the honour of important demonstrations of the properties of electric waves. In Poona Mr. Naegamvala is carrying on interesting work in the department of solar physics, and he organised an Indian solar eclipse expedition. But the reason why India has played so small a rôle in physical discovery is that for such investigations a costly and extensive equipment in the way of laboratories and apparatus is generally requisite. This kind of equipment India has never possessed as it is possessed by the countries of the West, and from what is isolated cases she has accomplished we are justified in concluding that the Indian mind only lacks the opportunity which such equipment would supply to take her place worthily among the countries that have gained reputation in this attractive field.

The duty of the Government of this great country in relation to the work of scientific investigation is a more fruitful topic, for there are signs that the Government is awaking to its great opportunities and its great responsibilities in this department of its functions. Great Britain has always been slow to rise to its duty in relation to scientific research; its great name in the field of discovery has been won for it by investigators who knew little of official support in their researches. Private enterprise has achieved more than Government-supported efforts. Indeed, it has only been under the pressure of calamity or necessity that the Government of Great Britain has attempted anything worthy of its place and resources in the interests of pure science.

Plague and other forms of disease have given the Government a new interest in bacteriology, and to this we in Western India owe the Research Laboratory over which the author of this paper presides. See how for generations Britain was indifferent to the importance of technical education. But when it saw that trade was passing out of its hands and that other countries with a better technical training were threatening her industrial pre-eminence, Britain awoke, and to-day there is a widespread extension of technical training. But a nation should not thus wait on stern necessity.

She owes a duty to science that is independent of advantage or necessity, and those nations that have responded to the duty have reaped as their reward an advantage that they did not at least consciously seek.

Let us trust that we live in times that will prove truer to this high duty. There are indications that such times are coming even in India. We are on the threshold of new University developments, and to me their main significance lies in the hope which they offer that India will enjoy better opportunities than in the past for the pursuit of all higher learning and more especially scientific learning. Government appears to cherish noble intentions in this regard, and if the wealth of the rich in the land will only co-operate, we may yet see the Universities of India sending forth the light of discovery into other lands.

The author of the paper has told us what a field for investigation India offers to the scientific medical officer and how eagerly the field is being entered, and what epoch-making discoveries have been established by the researches of members of his service. The past has not been without distinction, but the present and the near future seem to be full of promise. If these centenary celebrations should do nothing else than awaken India to a sense of its special opportunities for scientific research and the Government to its special responsibility in regard to them, they will render a service to the cause of scientific progress that will bear rich fruit in coming years.

Let me ask you to convey to Colonel Bannerman your most cordial thanks for the interesting and illuminating paper he has presented to the Society.

I ask you to accord your hearty thanks to Lieut.-Colonel Kirtikar for the able and interesting paper he has presented to us. Perhaps, some of you expected a summary of dry details in the survey which the writer of this paper was invited to present; but if you did, you have been disappointed, for Colonel Kirtikar has clothed his narrative with graphic language, and has filled his picture with living forms which it has been a pleasure to have thus re-called to our memory. The survey of botanical progress which he has given us will, when published, serve as a most valuable guide to students of his favourite science.

Colonel Kirtikar's record of the progress of botanical and zoological science has, however, one defect. It has told us nothing of the author's own important contributions to scientific work in this department, and I may be permitted to state what his own modesty kept him from mentioning, namely, that his own published papers and works deserve a high place in the record of the progress of botanical science in Western India during the last hundred years.

to the Journal, Newton published for the first time coins of Jayadāman, Chashṭana, Sanghadāman, and a new variety of those of Nahāpāna, which he showed to be a link with Bactria. The occurrence of Bactro Pali (Kharoshṭhi) legends on the coins of Nahāpāna and Chashṭana was first pointed out by Cunningham (Journal, Vol. IX, cviii). Newton's theory that the Kshatrapa coins are dated according to the Vikrama era is the only important part of his views that no longer holds the field. The now generally accepted view that the Kshatrapas used the Śaka era was first put forward by Dr. Bhau Daji in his paper on the inscription of Rudradāman (*Id.*, VII., 113—131), and was more fully developed in his paper on *The Ancient Sanskrit Numerals in the Cave Inscriptions* (*Id.*, VIII., 225—233). Newton's work was continued and brought up to date by Pandit Bhagwanlal Indrāji, whose paper appeared not in our Journal, but in that of the London Society (J. R. A. S. 1890, pp. 639 *ff*) after his lamented death. A valuable supplement to our knowledge of the Kshatrapa coins is to be found in the Rev. Mr. H. R. Scott's account of the large hoard recently found in the Uparkot at Junagad (*Description of a Hoard of 1,200 Kshatrapa Coins*, J. B. B. R. A. S. XX., 201 *ff*). Mr. Scott has corrected the dynastic list by the omission of the hypothetical Dāmasiri, has fixed many new dates, and has shown that the hoard was buried about the year 352 A.D. in the reign of Rudrasena III, probably on the occurrence of some political convulsion.

Certain gold coins were tentatively assigned either to the Andhra or to the Warangal dynasty by Dr. Bird (*Id.*, II., 64-5. *Notice of Ten Gold Coins from Hewli in South Konkan*), but the first genuine specimens of the Andhra coinage were noticed by Pandit Bhagwanlal (*Id.*, XII., p. 407. *A New Andhrabhritya King from a Kanheri Cave Inscription*), and no serious study of them was possible before the discovery of the great Brahmapuri hoard which furnished the Pandit with the materials for his paper (*On the Coins of the Andhrabhritya Kings of Southern India*, *Id.*, XIII., pp. 303—16), in which he dealt chiefly with coins of the Western class. He placed the three kings named on the coins in order of time as follows :—(1) Vāsiṭhīputa, (2) Māḍharīputa, (3) Gotamīputa, and suggested the connection of the last with Yaña Siri Sātakani of Dharnikot rather than with the Gotamīputa of the Nasik inscriptions. He also discussed the relation of these kings to those mentioned in the *purānas* and in the cave inscriptions. The differences between the Eastern and the Western coins of this family were first clearly pointed out by Dr. R. G. Bhandarkar in his *Memo. on Some Antiquarian Remains found near Kolhapur* (*Id.*, XIV., 147—154). He subsequently developed his theory of the constitution of the Andhra Empire in his *Early History of the Dekhan* (pp. 33 *ff*). The third and

very rare class of Andhra coins, which imitate those of the Kshatrapas, was made known by Pandit Bhagwanlal in his account of the antiquarian remains found at Sopara and Padana by him and Mr. J. M. Campbell (*Id.*, XV., pp. 273—328).

Scattered notices of punch-marked coins are to be found in the proceedings of the Society (*see* Vol. X. xxi, and XI. 2), and Dr. Codrington gave a brief account of some coins of this class from near Wai (*Id.*, XII., 400—403), but none of our members has made it a subject of detailed study.

To the Valabhi dynasty, Newton (*Id.*, VII., 14) first assigned the coins on which the word Bhaṭṭāraka has been read, and Cunningham has followed him (Arch. S. Rep. IX., 28), though the title in question can have nothing to do with the name of the founder of the Valabhi dynasty. The corrupt Western Gupta coins were first assigned to Valabhi by Pandit Bhagwanlal in his paper *On the Gadhia Coins of Gujarat* (J. B. B. R. A. S. XII., pp. 325—8), which remains the only general account of this coinage. Newton had pointed out (*Id.*, VII., 36) that the Gadhia coins imitate Sassanian types, and Pandit Bhagwanlal published a series of examples showing the progressive modification of the type, and ascribed these coins to the Chavda and Parmar dynasties between the 6th and 13th centuries A.D. His views were endorsed by Bühler (*Id.*, XII., xxiii). The total absence of inscriptions makes the arrangement and attribution of these coins exceedingly difficult, but they may eventually turn out to have been issued by the Gujar dynasty to which Bhoja of Kanauj belonged, and to be identical with the *Tâtarîya dirhams* of the early Muhammadan geographers.

The coins of Krishnarāja, who is commonly held to have been an early member of the Rāshṭrakūṭa house, were first described by Dr. Bhau Daji (*Id.*, XII., 213-4) from a find in Nasik district; but the inscription was not correctly read until further specimens were obtained from Kalbadevi in Bombay (*Id.*, XV., iv). Among minor articles may be mentioned the notes of Bird (*Id.*, II., 330 *ff*) and Wilson (III., 126 *ff*) on Parthian coins, and the ascription of certain gold coins to the second Vijayanagar dynasty (by Stevenson *Id.*, IV., pp. 466-7) and of others to the Kadambas of Goa (X., xxiv). Some coins of Jagadekamalla (A.D. 1138—1150) have lately been described by Professor S. R. Bhandarkar (*Id.*, XXI., 66 *ff*). Of later Hindu coins, the Jadeja issues of Kathiawar, which begin in 1585 A.D., have been studied by Dr. Codrington (*Id.*, XVII., pp. 49—56), and the Shivarai copper coins of Shivaji, Rāmrāja and Shāhu have been described by the Rev. Mr. J. E. Abbott (*Id.*, XX., 109 *ff*) whose paper is usefully supplemented by the late Mr. Justice Ranade's account from the Marāṭhā chronicles of the mint towns and currency policy of the Marāṭhās.

The Musalman coinages of India have received less general attention than those of the Hindus, because they are not so indispensable an aid to the historian. But Dr. Codrington has given a useful account of an obscure subject in his paper *On the Copper Coins of the Bahmani Dynasty* (*Id.*, XVI., pp. 99—104), and the Rev. Mr. G. P. Taylor has published an exhaustive study of *The Coins of the Gujarat Sultanat* (*Id.*, XXI., 278 *ff*), in which he supplements and corrects in many respects the account given in the catalogue of the British Museum. The curious Zodiacal coins of Jahangir have been noticed both by Dr. Bird (*Id.*, II., 65) and by Mr. Gibbs (*Id.*, XIV., 155-6). The hoard of a 14th century merchant of Broach, described by Codrington in Vol. XV. (pp. 339—370), illustrates the state of trade at the time. Other articles of interest to the student of Moslem numismatics are the series of facsimiles published by Rehatsek (*Id.*, X., pp. 163—6), Codrington's papers *On Some Rare Coins of the Amawee Khaleefehs* (*Id.*, XVI., pp. 93—8), and *On the Coins of Aboo Saeed of Persia* (*Id.*, XVI., vi) and Da Cunha's Account of the Gold Coins of the Mongols of Persia (*Id.*, XVII., xvii). A bye-path of African history is dealt with in Prideaux's papers on the coins of Harar (XVI. pp. 121—5) and on those of the Auxumite dynasty (*Id.*, XVI., xix.).

The tangled subject of Indo-Portuguese numismatics has been very fully dealt with by the late Dr. G. da Cunha in a series of papers (*Id.* XIV, pp. 267—273, pp. 402—417; XV., pp. 169—202; and XVI., pp. 17—73), which, together with the notices in Yule and Burnell's Hobson Jobson, remains the best authority on the issues of the Portuguese mints in Western India, Ceylon and Malacca.

Besides the papers named above, nearly every number of the Journal contains notices of specimens added to the Society's collection, of which a general view is given by Dr. Codrington in Vol. XVIII. (pp. 30—38).

2.—*The Mints of the Mughal Emperors of India.*

By Rev. G. P. Taylor, M.A., D.D.

Honoured with an invitation to contribute a paper for the Numismatic Section of this Centenary Volume, it affords me much pleasure to now communicate the following List of the Mints of the Mughal Emperors of India, accompanied by a brief statement of the steps taken in order to its compilation. To a certain degree this list will serve as an index of the recent very considerable advance in our knowledge of Indian numismatics for the period commencing with the accession of Bābar in 1525 A.D. and closing with the deposition of Bahādur in the fateful year of the Mutiny. All who in this country have seriously set themselves to collect the Indian Mughal coins of that period know only too well how lamentably meagre have been the mint-lists at their disposal.

In 1892 the volume of the British Museum Catalogue treating of the coins of this special period issued from the press. As a presentment of the coins in the National Collection this volume leaves little to be desired, and the admirably executed autotype plates, thirty-three in number, greatly enhance its value. But this catalogue by its very completeness serves to reveal the more clearly the poverty of the representation of the Indian Mughal mints in the coin-cabinets of the British Museum. The mints there in evidence number just 80. Not improbably during the last twelve years the Museum authorities may have acquired coins from other mints, but they have not, so far as I am aware, recorded these additions in any supplemental publication.

In 1893 by order of the Panjab Government a catalogue was prepared and printed of the rich collection of coins purchased for the Lahor Museum from the late Mr. Charles J. Rodgers, then Honorary Numismatist to the Government of India. The resultant volume, though but a bare catalogue without a single illustration, is most useful as a book of reference. This collection, made by a private individual in his leisure hours, cannot indeed in its gold coins vie with the splendid series in the British Museum, but both in its silver and in its copper it is distinctly superior. Yet even here too the mints are inadequately represented, the whole collection containing specimens in one or other metal from not more than 105 mint-towns.

In 1894 the Trustees of the Indian Museum issued Part II of their coin-catalogue, in which are registered the coins of the Mughal

Emperors of India. The Calcutta coin-cabinets, however, fall far short of those at Lahor, and their mints are only 76 in number.

It is much to be regretted that no catalogue of the coins in the Lucknow Museum has yet been published. Quite recently the treasures of Mr. R. W. Ellis's cabinets were purchased for that Museum, and, as thus enriched, the Lucknow collection probably takes premier rank amongst the Government collections in India.

Now there can be little doubt that any one who will be at the pains to forage for coins in the bazars of the larger cities will occasionally light upon specimens from mints not mentioned in any of the three printed catalogues, those of the British Museum and of the Museums at Lahor and Calcutta. It may be that an exceptional good fortune has attended me in the Ahmadabad bazar, but the discovery of a rupee from the Pattan Dev mint, and later of others from Punch, from Bahadurgarh, from Ausa, from Islambandar, and from Ranthor—all these being mints previously unknown—impressed me with the need for the preparation of a mint-list much fuller than any that could be constructed from the existing material in print. To supply this need it was only necessary to solicit information from private collectors whose coin-cabinets might contain specimens from a considerable variety of mints. Mr. Nelson Wright, of Allahabad, had already sent me a list of the mints represented in his own collection, and this kindness encouraged in me the hope that other friends too would render similar assistance—a hope that has been abundantly fulfilled. Forthwith I devised a simple "form" in which could be entered the mints and metals, gold or silver or copper, of the coins issued in the reign of each of the Mughal Emperors. A few copies of this form were sent to the undermentioned gentlemen-collectors, each one of whom, in due time and with the most courteous readiness, returned me the forms filled in :—

1. Mr. Geo. B. Bleazby, Financial Department, Allahabad ;
2. Mr. R. Burn, I.C.S., Allahabad ;
3. Mr. Framji Jamaspji Thanawala, of Messrs. Gaddum & Co., Bombay ;
4. Mr. L. White King, LL.D., C.S.I., Rawal Pindi ;
5. Mr. H. Nelson Wright, I.C.S., Allahabad.

Mr. Burn most kindly supplied two lists—one of the mints represented in his own cabinet and the other of those in the Lucknow Museum. Thus six MS. Mint-lists were placed at my disposal. Besides these

I had as further material my own collection and the three printed catalogues. In this way in all ten coin-cabinets have been collated, and the resultant mint-list is herewith submitted. Instead of the 76 mints of the Calcutta Museum, or the 80 of the British Museum, or the 105 of the Lahor Museum, we now reach a minimum total of 191. I say "minimum total," for we have in each case counted as one only such doublets and triplets as Aṭak and Aṭak Banaras, Shergarh Qanauj and Shahabad Qanauj, Bareli, Aṣafabad Bareli and Bareli Qaṯ^c etc. Also doubtful mints, such as Ajayur, Jalunabad, Kanan, Kandi, &c., while admitted into the list, have not been included in the numbering. Had a less rigid method of enumeration been adopted, the total number of mints would stand as high as 222.

It is matter for regret that more coin-collectors were not invited to report each on the mints in his own cabinet. I should have prized very highly such co-operation on the part of Dr. O. Codrington, Hon. Librarian of the Numismatic Society, also of Mr. Longworth Dames, I.C.S., but when entering on the work it seemed to me necessary to limit the field of enquiry to the cabinets of collectors in this country. On this point, however, as the event proved, I was labouring under a misapprehension, for Dr. White King, whose collection is probably the largest of all, was so good as to prepare his mint-list while on leave in England. I should certainly have sought the assistance of Mr. R. W. Ellis, of Lahor, had I known that his magnificent collection was still intact. Happily it is not to be dispersed, and from its new home in the Lucknow Museum it may yet be possible to glean the desired additional information. Most of all, would I have welcomed mint-lists of the coins in the cabinets of the Asiatic Societies in India. But alas !

Damnosa quid non imminuit dies?

Hörnle no longer resides in Calcutta, and the mantle of Da Cunha has fallen on no disciple in Bombay; so to-day the numismatic treasures in those cabinets lie almost unnoticed. What, then, could be more desirable in connexion with these Centenary celebrations than the publication of a volume, worthily illustrated, descriptive of the coins in the possession of our Society?

It will be seen that to the resultant list of mint-towns three columns have been added in order to indicate whether the coins that issued from each several mint were struck in gold or silver or copper. From the information thus supplied it becomes quite easy to form subordinate tables showing which of the mints struck their coins in only one of the metals, which in any two of them, and which in all three.

It is well known that on the coins of several of the Indian mints is inscribed, along with the name of the mint-town, some honorific epithet. Accordingly I have compiled a list of these epithets, and have further indicated the mint or mints with which each one was associated. A converse list is also given in which, below each mint, entry is made of its one or more distinctive titles. The present is, I believe, the first attempt to construct such tables with any approach to fulness of detail.

I may here add that the order observed throughout the following lists is strictly that of the letters of the Persian alphabet: also that the mint-names, when written in English characters, have been transliterated in conformity with the scheme accepted by the Geneva Oriental Congress of 1894, and subsequently recommended by the Council of the Royal Asiatic Society for general adoption.

Having written thus far, I had laid my manuscript aside for a few days, when the home-mail brought me, as a most welcome present from Dr. Oliver Codrington, a copy of his recently published "Manual of Musalman Numismatics." For us in Western India a special interest attaches to this book, inasmuch as its esteemed author was some thirty years ago Honorary Secretary of the Bombay Asiatic Society, and throughout the period of his residence in India a frequent contributor to its Journal. The book itself is simply invaluable, supplying as it does, within the compass of its 240 octavo pages, just the information most useful to collectors of Oriental coins. To these it will prove a veritable *vade mecum*. Its lists of legends and of mint-towns with their titles are much more extensive than any hitherto published. The coins of the Mughal Emperors of India constitute but a small portion of the immense field comprised under the term "Musalman Numismatics," yet in his "Manual" Dr. Codrington records as many as 180 mints of those Emperors. Twenty-four of these mint-towns are not entered in the lists accompanying this paper, but of the twenty-four the following eight are of more or less doubtful rendering.

اسفیر	Asfīr (?).
اعزاباد	I^czābād (?).
سیتاپور	Sītāpūr (? Sītpūr).
شکارالگاه	Shikār al Gāh (?).
کلکته	Kalkata (? Gōlkōnda).
ماوگهیر	Māughīr (? Mānghīr).
مهرپور	Maharpūr (? Maha Indrapūr).
نگر	Nagar (? B[h]akkar).

There still remain, however, the following sixteen mint-towns, most, not all, of which may fairly claim full recognition :—

بداون	Budāun.
بندہ	Binda.
بہاولپور	Bhāwalpūr.
تاندہ	Tānda.
جالندر	Jālandar.
جلالاباد	Jalālābād.
جلالپور	Jalālpūr.
جہاناباد	Jahānābād (? Shāhjahānābād).
جہانگیراباد	Jahāngīrābād.
جہانگیرپور	Jahāngīrpūr
رانجین	Rānajīn.
سکندراباد	Sikandarābād.
سیالکوٹ	Siyālkoṭ.
عالمگیرنگر	ᶜĀlamgīrnagar.
کالنجر	Kālinjar.
ہاپور	Hāpūr.

If all these sixteen be given admission to the following list, its minimum total of mints will rise from 191 to 207, and its maximum total from 222 to 238.

GEO. P. TAYLOR.

AHMADĀBĀD :
th August, 1904.

I.—MINT-LIST.

No.	Mint.	Metal.			Mint.
1	اتاوا or اتاوه	G	S		Etāwā or Etāwa.
2	اتک		S		Aṭak.
2b	اتک بنارس		S	C	Aṭak Banāras.
?	اجایوز		S		Ajāyūr.
3	اجمیر	G	S	C	Ajmīr.
3b	اجمیر سلیم گڑه			C	Ajmīr Salīmgaṛh.
4	اجین or اوجین	G	S	C	Ujjain or Ūjain.
5	احسن اباد	G	S		Aḥsanābād.
6	احمد اباد	G	S	C	Aḥmadābād.
7	احمد نگر	G	S	C	Aḥmadnagar.
7b	احمد نگر فرخ اباد	G	S		Aḥmadnagar Farrukhābād.
8	اختر نگر اود or اختر نگر اوده		S		Akhtarnagar Awad or Akhtarnagar Awadh.
...	ادوگام see دوگام			C	Adogām : *see* Dogām.
9	ادونی		S		Adonī.
9b	امتیاز or امتیاز گڑه	G	S		Imtiyāz or Imtiyāzgaṛh.
9c	امتیاز ادونی or امتیاز گڑه ادونی		S		Imtiyāz Adonī or Imtiyāzgaṛh Adonī.
10	ادیپور or اودیپور		S	C	Udaipūr or Ūdaipūr.
10b	محمد اباد عرف ادیپور	G			Muḥammadābād ʿurf Udaipūr.
11	اردو	G	S		Urdū.

I.—MINT-LIST—*contd.*

No.	Mint.	Metal.			Mint.
11*b*	اردو در راه دکهن		S		Urdū dar rāh-i-Dakhin.
11*c*	اردو ظفر قرین	G	S	C	Urdū ẓafar qarīn.
12	ارکات		S		Arkāt.
13	اسلام اباد	G	S	C	Islāmābād.
13*b*	اسلام اباد متهرا		S		Islāmābād Mathurā.
14	اسلام بندر		S		Islāmbandar.
15	اسماعیل گڑه or اسمعیل گڑه			C	Ismāᶜīlgaṛh or Ismaᶜīlgaṛh.
16	اسیر	G			Asīr.
...	آصف اباد بریلي		S		Āṣafābād Bareli: *see* Bareli.
17	اعظم نگر		S		Aᶜẓamnagar.
18	اکبراباد	G	S	C	Akbarābād.
19	اکبرپور		S	C	Akbarpūr.
20	اکبرنگر	G	S	C	Akbarnagar.
21	آگره	G	S	C	Āgra.
22	الور		S	C	Alwar.
23	الهاباد	G	S	C	Ilahābād.
23*b*	الهاباس			C	Ilahābās.
...	امتیاز or امتیازگڑه	G	S		Imtiyāz or Imtiyāzgaṛh: *see* Adonī.
...	امتیاز ادوني or امتیازگڑه ادوني		S		Imtiyāz Adonī or Imtiyāzgaṛh Adonī: *see* Adonī.
24	امیرکوت			C	Amīrkoṭ.

I.—MINT-LIST—*contd.*

No.	Mint.	Metal.			Mint.
25*a*	[برج] اندرپور		S		[Braj] Indrapūr.
25*b*	[مهه] اندرپور	G	S	C	[Maha] Indrapūr.
26	آنوله		S		Ānwla.
...	اوجين	G	S	C	Ūjain : *see* Ujjain.
27	اود or اوده or		S	C	Awad or Awadh.
...	اختر نگر اود or اختر نگر اوده		S		*See* Akhtarnagar. Awad or Akhtarnagar Awadh.
...	اودیپور		S	C	Ūdaipūr: *see* Udaipūr.
28	اورنگ اباد	G	S	C	Aurangābād.
29	اورنگ نگر		S		Aurangnagar.
30	اوسا		S		Ausā.
31	ایلچپور		S	C	Elichpūr.
32	بالاپور	G			Bālāpūr.
33	بدخشان		S		Badakhshān.
...	[برج] اندرپور		S		[Braj] Indrapūr : *see* Indrapūr.
34	بروده		S	C	Baroda.
35	برهان اباد			C	Burhānābād.
36	برهانپور	G	S	C	Burhānpūr.
37	بريلي	G	S		Bareli.
37*b*	آصف اباد بريلي		S		Āṣafābād Bareli.
37*c*	بريلي قطع		S		Bareli Qaṭʿ.
38	بسولي		S		Bisauli.
39	بلدة صفا		S		Baldat-i-Ṣafā.
40	بلونت نگر		S		Balwantnagar.
41	بنارس			C	Banāras.
...	اتک بنارس		S	C	*See* Aṭak Banāras.

I.—MINT-LIST—*contd.*

Mint.	Metal.			Mint.
بنارس سرسه			C	Banāras Sirsa.
محمدابادبنارس	G	S		Muḥammadābād Banāras.
بندرابن			C	Bindrāban.
مومن‌ابادبندرابن		S		Mūminābād Bindrāban.
بندرشاهي			C	Bandar Shāhī.
بنکاپور		S		Bankāpūr.
بنگاله		S		Bangāla.
بونچ			C	Būnch.
بهادرپتن	G			Bahādurpattan.
بهادرگره		S		Bahādurgaṛh.
بهرایچ			C	Bahrāich.
بهرت پور		S	C	Bharatpūr.
بهروچ		S		Bharūch.
بهکر or بکر		S	C	Bhakkar or Bakkar.
بهوپال		S		Bhopāl.
بهیلسه		S		Bhīlsa.
بیجاپور	G	S	C	Bījāpūr.
بیرات or بیراته		S	C	Bairāt or Bairāṭa.
پاني پت		S		Pānipat.
پتن دیو	G	S		Pattan Dev.
پتنه	G	S	C	Patna.
پربندر		S		Parbandar.
پشاور	G	S	C	Pēshāwar.
پنج نگر		S		Panjnagar.
پونچ		S		Pūnch.

I.—MINT-LIST—*contd.*

No.	Mint.	Metal.			Mint.
63	تته	G	S	C	Tatta.
64	جالنه پور		S		Jālnapūr.
65	جلال نگر			C	Jalālnagar.
?	جلون اباد		S		Jalūnābād.
66	جلير or جالير		S		Jalair or Jālair.
67	جمون		S		Jammūn.
68	جونپور	G	S	C	Jaunpūr.
68*b*	ده جونپور			C	Dēh Jaunpūr (?).
69	جونه گڑه		S		Jūnagaṛh.
70	جهانسي			C	Jhānsī.
71	جهانگير نگر	G	S	C	Jahāngīrnagar.
72	جهود پور or جودهپور		S	C	Jhodpūr or Jodhpūr.
73	[سوائی] جي پور	G	S	C	[Sawā'ī] Jaipūr.
74	چتركوت or چترکوه			C	Chitrakūṭ or Chatarkoh.
75	چنار		S	C	Chunār.
76	چنپانير or چانپانير		S	C	Champānīr or Chāmpānīr.
77	چهچرولي			C	Chhachraulī.
78	چيتور		S	C	Chitor.
79	چيناپتن	G	S		Chīnāpattan.
80	حافظ اباد		S	C	Ḥāfiẓābād.
81	حسن اباد	G		C	Ḥasanābād.
82	حسين اباد		S		Ḥusainābād.
83	حصار		S	C	Ḥiṣār.

I.—MINT-LIST—*contd.*

No.	Mint.	Metal.			Mint.
83*b*	حصار فیروزه		S	C	Ḥiṣār Fīroza.
84	حیدرآباد	G	S	C	Ḥaidarābād.
84*b*	دارالجهاد حیدرآباد		S		Dār al jihād Ḥaidarābād.
84*c*	دارالجهاد		S		Dār al jihād.
85	خارپور			C	Khārpūr.
86	خجسته بنیاد	G	S		Khujista Bunyād.
87	خیرپور			C	Khairpūr.
88	خیرنگر		S		Khairnagar.
89	دادر			C	Dādar.
...	دارالجهاد		S		Dār al jihād : *see* Ḥaidarābād.
90	دامله			C	Dāmlā.
91	دل شادآباد		S		Dilshādābād.
92	دوگام or دوگانو or ادوگام			C	Dogām or Dogānw or Adogām.
93	دولتآباد	G	S		Daulatābād.
94	دهارور فتح آباد		S		Dhārūr Fatḥābād.
95	دهلي	G	S	C	Dēhlī.
96	دیره		S		Dera.
97	دین گره		S		Dīngarh.
98	دیوگره		S		Devgarh.
99	دیول		S		Dewal.
100	رنتهور		S		Ranthor.
101	رهتاس		S		Rōhtās.
102	زین البلاد		S		Zain al bilād.
?	سارنگپور	G			Sārangpūr.
103	سانبهر		S		Sāmbhar.

I.—MINT-LIST—*contd.*

No.	Mint.	Metal.			Mint.
104	ستگانو or سکانو		S		Satgānw or Sakānw.
...	سرسه			C	Sirsa : *see* Banāras.
?	سرونج		S	C	Sironj,
105	سري نگر		S	C	Srīnagar.
...	سليم گڑه			C	Salīmgaṛh : *see* Ajmīr.
106	سنبل or سنبهل			C	Sambal or Sambhal.
...	[سوائي] جي پور	G	S	C	[Sawā'ī] Jaipūr : *see* Jaipūr.
107	سورت	G	S	C	Sūrat.
108	سهارنپور		S	C	Sahāranpūr.
109	سهرند or سرهند	G	S	C	Sahrind or Sarhind.
110	سيتپور		S		Sītpūr.
111	سيوپور		S		Sevpūr.
...	[شاه اباد] قنوج		S		[Shāhābād] Qanauj: *see* Qanauj.
112	شاه جهان اباد	G	S	C	Shāhjahānābād.
113	شولاپور or شلاپور	G	S	C	Sholāpūr or Shōlāpūr.
114	شيرپور			C	Sherpūr.
...	[شيرگڑه] قنوج			C	[Shergaṛh] Qanauj : *see* Qanauj.
...	[صاحب اباد] هانسي		S		[Ṣāḥibābād] Hānsī : *see* Hānsī.
??	صورت		S		Ṣūrat.
115	ظفراباد		S		Ẓafarābād.
116	ظفرپور		S		Ẓafarpūr.
117	ظفرنگر		S		Ẓafarnagar.
118	عالم گيرپور		S		'Ālamgīrpūr.

I.—MINT-LIST—*contd.*

Mint.	Metal.			Mint.
عظیم اباد	G	S	C	ʻAẓīmābād.
فتح اباد		S		Fatḥābād : *see* Dhārūr.
فتح پور	G	S	C	Fatḥpūr.
فرخ اباد		S	C	Farrukhābād.
احمد نگر فرخ اباد	G	S		Aḥmadnagar Farrukhābād *see* Aḥmadnagar.
فرخ نگر			C	Farrukhnagar.
فیروز پور			C	Fīrozpūr.
فیروز نگر		S		Fīroznagar.
حصار فیروزه		S	C	Ḥiṣār Fīroza : *see* Ḥiṣār.
قمر نگر		S		Qamarnagar.
قندهار		S	C	Qandahār.
[شاه اباد] قنوج		S		[Shāhābād] Qanauj.
[شیرگڑه] قنوج			C	[Shergaṛh] Qanauj.
کابل	G	S	C	Kābul.
کالپي		S	C	Kālpī.
خطه کالپي			C	Khitta Kālpī
محمد اباد عرف کالپي			C	Muḥammadābād ʻurf Kālpī.
کانان			C	Kānān.
کاندي		S		Kāndī.
کتک		S	C	Kaṭak.
کچرولی			C	Kachrauli.
کرارا باد		S		Karārābād.
کرشن گڑه		S		Krishnagaṛh.
کریم اباد		S		Karīmābād.
کشمیر	G	S	C	Kashmīr.
کلانور		S		Kalānūr.

I.—MINT-LIST—*contd.*

No.	Mint.	Metal.			Mint.
	کلبرگہ	G	S	C	Kulburga : *see* Gulburga.
137	کوزا	G	S		Korā.
138	کھنبایت or کنبایت	G	S		Khambāyat or Kambāyat.
139	کیرت پور			C	Kīratpūr.
140	گلبرگہ or کلبرگہ	G	S	C	Gulburga or Kulburga.
141	گلکندہ	G	S		Gōlkōnda.
142	گنگپور	G			Gangpūr.
143	گوالیار	G	S	C	Gwāliār.
144	گوبندپور			C	Gobindpūr.
145	گوتي	G			Gūtī.
146	گورکپور			C	Gorakpūr.
147	گوکل گڑہ		S		Gokalgaṛh.
148	لاہور	G	S	C	Lāhor.
149	لکھنو		S	C	Lakhnau.
150	لہري بندر		S		Lahrī Bandar.
151	مالپور			C	Mālpūr.
152	مانکپور			C	Mānikpūr.
153	مانگڑہ			C	Māngaṛh.
154	مانگھیر			C	Mānghīr.
...	اسلام اباد متھرا		S		Islāmābād Mathurā : *see* Islāmābād.
155	مجاہداباد	G			Mujāhidābād.
156	مچھلي پتن	G	S	C	Machhlīpattan.
157	محمداباد	G	S		Muḥammadābād.
...	محمداباد بنارس	G	S		Muḥammadābād Banāras *see* Banāras.

I.—MINT-LIST—*contd.*

No.	Mint.	Metal.			Mint.
...	محمد اباد عرف ادیپور	G			Muḥammadābād. 'urf Udaipūr : *see* Udaipūr.
...	محمد اباد عرف کالپي			C	Muḥammadābād. 'urf Kālpī : *see* Kālpī.
158	محمد نگر		S		Muḥammadnagar.
159	مخصوص اباد		S		Makhṣūṣābād.
160	مدن کوت			C	Madankoṭ.
161	مراد اباد		S		Murādābād.
162	مرشد اباد	G	S		Murshidābād.
163	مصطفی اباد		S		Muṣṭafa-ābād.
164	مظفر اباد		S		Muẓaffarābād.
165	مظفر گڈھ		S		Muẓaffargaṛh.
166	مظفر نگر			C	Muẓaffarnagar.
167	معظم اباد	G	S		Mu'aẓẓamābād.
168	ملتان	G	S	C	Multān.
169	ملکہ نگر	G			Malikanagar.
170	ملہار نگر		S		Mulhārnagar.
171	منبي	G	S		Mumbai.
171*b*	منبي سورت		S		Mumbai Sūrat.
172	مندسور		S		Mandisor.
173	مندو	G		C	Mandū.
174	مومن اباد		S	C	Mūminābād.
...	مومن اباد بندرابن		S		Mūminābād Bindrāban : *see* Bindrāban.
...	[مہہ] اندرپور	G	S	C	[Maha] Indrapūr : *see* Indrapūr.
175	مہي سور		S		Mahīsūr.

I.—MINT-LIST—*contd.*

No.	Mint.		Metal.		Mint.
176	میرٹھ			C	Mīrath.
177	میلاپور		S		Mailāpūr.
178	نارنول		S	C	Nārnol.
179	ناگپور or ناگور		S		Nāgpūr or Nāgor.
180	ناہن			C	Nāhan.
181	نجف گڑھ		S		Najafgaṛh.
182	نجیب آباد	G	S	C	Najībābād.
183	نجیب گڑھ		S		Najībgaṛh.
184	نروار		S		Narwar.
185	نصراللہ نگر		S		Naṣrullanagar.
186	نصرت آباد		S		Nuṣratābād.
187	نورگل		S		Nūrgal.
188	والیجاباد			C	Wālijābād.
189	ہاتھرس		S		Hāthras.
190	[صاحب آباد] ہانسی		S		[Ṣāḥibābād] Hānsi.
191	ہردوار		S		Hardwār.

N.B.—Under date February 1905 Mr. Bleazby writes me of his havi acquired coins from two mints not yet registered, a muhr fr Ḥājīpūr (حاجی پور) and a dām from Sherkoṭ شیرکوٹ. B these coins were issued in the reign of Akbar I.

II.—MINT-TITLES.

A.—Honorific Epithets with their Mints.

1. آصف آباد Āṣafābād : the city of Āṣaf (wazīr).
   Bareli S .....Shāh 'Ālam I.

2. برج Braj : so named from a title of the Mahārājā (Rodgers).
   Indrapūr S .....Akbar II.

3. بلدة Baldat : town.
   Ujjain S.....Shāh Jahān I.
   Akbarābād G.....Akbar.
   Āgra G.....Akbar.
   Ilahābād S.....Aurangzeb.
   Burhānpūr S.....Shāh Jahān I.
   Sahrind C.....Akbar.

4. بلدة صفا Baldat i Ṣafā : town of purity.
   ? S.....'Ālamgīr II.

5. بلدة فاخرة Baldat fākhira : excellent town.
   Burhānpūr S.....Aurangzeb.

6. بندر Bandar : port.
   Dewal S.....Akbar.

7. بندر مبارک Bandar mubārak : blessed port.
   Sūrat S.....Aurangzeb.

8. تیرت Tīrt : place of pilgrimage.
   Hardwār S.....Shāh 'Ālam II.

9. حضرت Ḥaḍrat : Presence (of the king).
   Dĕhlī G. S. C.....Humāyūn.
   ,, ,, ...Akbar.

[خسرو گیتی پناه Khusrau getī panāh : Chosroes (Cyrus), the refuge of the world.
   Āgra G.....Jahāngīr.]

10. خطه Khiṭṭa : district.
   Bareli S .....Shāh 'Ālam II.

11. دارالاسلام Dār al Islām : the seat of Islām.
   Dogām C.....Akbar.

12. دارالامان Dār al amān : the seat of safety.
Āgra C.....Humāyūn.
Jammūn S.....Shāh 'Ālam II.
Multān G. S.....Aurangzeb.

13. دارالبركات Dār al barakāt : the seat of blessings.
Nāgpūr (? Nāgor) S.....'Ālamgīr II.
,, ,, ,,.....Shāh 'Ālam II.

14. دارالتصور Dār al taṣawwur : the seat of meditation.
Jodhpūr S.....Aḥmad Shāh.
,, C.....Akbar II.

15. دارالجهاد Dār al jihād : the seat of war (crescentade).
Ḥaidarābād G. S. C.....Aurangzeb.
,, S.....Kām Bakhsh.
,, S.....Shāh 'Ālam I.

16. دارالخلافة Dār al khilāfat : the seat of the Caliphate.
Aḥmadābād S.....Akbar.
Akbarābād G. S.....Shāh Jahān I.
Akbarpūr C.....Akbar.
Āgra C.....Bābar.
,, ,, ...Humāyūn.
,, G. C.....Akbar.
,, S.....Shāh Jahān I.
Awadh C.....Akbar.
Bahrāich C.....Akbar.
Jaunpūr G. S. C.....Akbar.
Dogām C.....Akbar.
Shāhjahānābād S.....Shāh Jahān I.
,, G. S.....Aurangzeb.
,, ,, ...Shāh 'Ālam I.
,, ,, ...Jahāndār.
,, ,, ...Farrukh-siyar.
,, ,, ...Rafī'al darajāt.
,, ,, ...Shāh Jahān II.
,, S.....Ibrāhīm.
,, G. S.....Muḥammad Shāh.
,, ,, ...Aḥmad Shāh.
,, ,, ...'Ālamgīr II.
,, S.....Shāh Jahān III.
,, G. S. C....Shāh 'Ālam II.
,, G. S.....Akbar II.
,, S.....Bahādur II.

Qanauj C.....Akbar.
Gwāliār C.....Akbar.
Gorakpūr C.....Akbar.
Lāhor C..... Humāyūn.
,, G.....Akbar.
Lakhnau C.....- .....Akbar.

17. دارالخلافة خطه Dār al khilāfat khitta : the district, the seat of the Caliphate.
Awadh C.....,...Akbar.

18. دارالخير Dār al khair : the seat of weal.
Ajmīr G. S.....Aurangzeb.
,, S.....Farrukh-siyar.
,, ,, ...Muḥammad Shāh.
,, ,, ...Aḥmad Shāh.
,, ,, ...Ālamgīr II.
,, ,, ...Shāh 'Ālam II.

19. دارالسرور Dār al surūr : the seat of delight.
Burhānpūr G. S.....Shāh 'Ālam I.
,, S.....Jahāndār.
,, ,,.....Farrukh-siyar.
,, ,,.....Muḥammad Shāh.
,, ,,.....Aḥmad Shāh.
,, ,,.....'Ālamgīr II.
,, ,,.....Shāh 'Ālam II.
,, ,,.....Akbar II.
Sahāranpūr S.....Shāh 'Ālam II

20. دارالسلام Dār al salām : the seat of peace.
Dogām C.....Akbar.
Mandisor S.....Shāh 'Ālam II.

21. دارالسلطنة Dār al salṭanat : the seat of the Sultanate.
Aḥmadābād G. S. C.....Akbar.
Burhānābād C.....Akbar.
Burhānpūr G.....Jahāndār.
Fatḥpur S. C.....Akbar.
Lāhor G. S. C.....Akbar.
Lāhor S.....Shāh Jahān I.
,, ,,.....Aurangzeb.
,, ,,.....Shāh 'Ālam I.
,, ,,.....Farrukh-siyar.
,, ,,.....Rafi'al darajāt.
,, ,,.....Shāh Jahān II.

Lāhor S.....Muḥammad Shāh.
,, ,,.....Aḥmad Shāh.
,, ,,.....ᶜĀlamgīr II.

22. دارالضرب Dār ḍal arb : the seat of the mint.
Aḥmadābād G. S.....Akbar.
Patna G. S.....Akbar.
Jaunpūr C.....Humāyūn.
Ḥiṣār S.....Akbar.
Fatḥpūr C.....Akbar.
Kālpī C.....Akbar.

23. دارالضرب خطه Dār al ḍarb khiṭṭa : the district, the seat of the mint.
Kālpī C.....Akbar.

24. دارالضرب قلع Dār al ḍarb qalᶜa : the fortress, the seat of the mint.
Āgra C.....Bābar.

25. دارالضرب متبرک خطه Dār al ḍarb mutabarrak khiṭṭa : the blessed district, the seat of the mint.
Jaunpūr C.....Bābar.
,, ,,.....Humāyūn.

26. دارالظفر Dār al ẓafar : the seat of triumph.
Bījāpūr G. S. C.....Aurangzeb.
,, S.....Kām Bakhsh.
,, C.....Farrukh-siyar.

27. دارالعدل Dār al ʿadl : the seat of justice.
Āgra C.....Humāyūn.

28. دارالفتح Dār al fatḥ : the seat of victory.
Ujjain S.....Aurangzeb.
,, ,,.....Shāh ʿĀlam I.
,, ,,.....Jahāndār.
,, ,,.....Farrukh-siyar.
,, G. S.....Muḥammad Shāh.
,, S.....ʿĀlamgīr II.
,, ,,.....Shāh ʿĀlam II.

29. دارالمصورده Dār al muṣawwir dēh : the village, the seat of the painter (?).
Jaunpūr C.....Akbar II.

30. دارالملک Dār al mulk : the seat of the kingdom.
Kābul G. S. C.....Aurangzeb.
,, S.....Shāh ᶜĀlam I.
,, G.....Rafīᶜal darajāt.

31. دارالملک حضرت Dār al mulk ḥaḍrat : the seat of the kingdom, the Presence (of the king).
Dĕhlī C.....Humāyūn.
,, G.....Akbar.

32. دارالمنصور Dār al manṣūr : the seat of the conqueror.
Jodhpūr S.....'Ālamgīr II.
,, ,, ...Shāh 'Ālam II.

33. درراه دکهن Dar rāh-i-Dakhin : on the way to the Deccan.
Urdū S.....Jahāngīr.

34. ده Dĕh : a village.
Jodhpūr S.....Shāh 'Ālam II.

35. زین البلاد Zain al bilād : the ornament of towns.
? S.....Muḥammad Shāh.

36. زینت البلاد Zīnat al bilād : the beauty of towns.
Aḥmadābād S.....Rafīᶜal darajāt.

37. سلیم گڑه Salīmgaṛh : the fort of Salīm.
Ajmīr C.....Akbar.

38. سوائي Sawā'ī : *lit.* 'one and a quarter'; hence 'exceptional.'
Jaipūr S.....Muḥammad Shāh.
,, ,,.....Aḥmad Shāh.
,, ,,.....Shāh 'Ālam II.
,, ,,.....Akbar II.

39. شاه اباد Shāhābād : the city of the monarch.
Qanauj S.....Muḥammad Shāh.
,, ,,.....Aḥmad Shāh.
,, ,,.....'Ālamgīr II.
,, ,,.....Shāh Jahān III.
,, ,,.....Shāh 'Ālam II.

[شاه گردون بارگاه Shāh gardūn bārgāh : the monarch of heaven's court.
Akbarnagar S. .....Jahāngīr.]

40. شهر مکرم Shahr mukarram : the illustrious city.
Champānīr C.....Humāyūn.

41. شیرگڑھ Shergaṛh : tiger-fort.
Qanauj C.....Akbar.

42. صاحب اباد Ṣāḥibābād : the town of the Ṣāḥib, *i.e.*, of George Thomas.
Hānsī S.....Shāh 'Ālam II.

43. صوبه Ṣūba : a province.
Awadh S.....Shāh 'Ālam II.

44. ظفرقرین Ẓafar qarīn : linked to triumph.
Urjū G. S. C.....Akbar.

45. فتح اباد Fatḥābād : the city of victory.
Dhārūr S.....Farrukh-siyar.

46. فرخ اباد Farrukhābād : fortunate city.
Aḥmadnagar S.....'Ālamgīr II.
,, ,,.....Shāh Jahān III.
,, G. S.....Shāh 'Ālam II.

47. فرخنده بنیاد Farkhunda bunyād : of fortunate foundation.
Ḥaidarābād S.....Shāh 'Ālam I.
,, G. S.....Muḥammad Shāh.
,, S.....Akbar II.
,, S.....Bahādur II.

48 فیروزه Fīroza : prosperous.
Ḥiṣār C.....Akbar.

49. قصبه Qaṣba : a township.
Pānipat S.....Shāh 'Ālam II.
Sherkoṭ C.....Akbar.

50. قطع Qat^{c} : a division.
Bareli S.....Shāh 'Ālam II.

51. قلعه Qal^{c}a : a fortress.
Āgra C.....Bābar.
,, G.....Akbar.
Alwar S.....Akbar.
Būnch (? Pūnch) C.....Shāh ^{c}Ālam II.
Gwāliār C.....Akbar.

ʾadābād : the city of Muḥammad.
.....Akbar.
.....Muḥammad Shāh.
.....Aḥmad Shāh.
.. ..ʿĀlamgīr II.
Shāh ʿĀlam II.
.kbar.

the resting-place of the

.....Shāh ʿĀlam I.
....Aurangzeb.
.. S.....Shāh ʿĀlam I.
S.....Farrukh-siyar.
,,.....Rafīʿal darajāt.
,,..... Shāh Jahān II.
,, G. S..... .... .Muḥammad Shāh.
,, S.....Aḥmad Shāh.
,, ,,.....ʿĀlamgīr II.
,, ,,..... Shāh ʿĀlam II.

مستقر Mustaqirr al mulk : the resting-place of the kingdom.
Akbarābād S.....Shāh ʿĀlam I.
,, ,,.....Jahāndār.
,, ,,.....Farrukh-siyar.
,, ,,.....Shāh ʿĀlam II.
Patna S..... .....Jahāndār.
ʿĀẓīmābād S.....Farrukh-siyar.

م Maftūḥat : conquered.
Udaipūr G.....Akbar.

مومن Mūminābād : the city of the faithful.
Bindrāban S.....Shāh ʿĀlam II.

aha : so named from a title of the Mahārājā (Rodgers.)
idrapūr G. S.....ʿĀlamgir II.
,, ,, ,,.....Shāh Jahān III.
,, G. S. C.....Shāh ʿĀlam II.
,, S.....Akbar II.

B. Mints with their Honorific Epithets.

Mint : Ajmīr.
Epithets : Dār al khair ;
Salīmgarh ;
Mustaqirr al khilāfat.

Mint : Ujjain.
Epithets : Baldat ;
Dār al fatḥ.

Mint : Aḥmadābād.
Epithets : Dār al khilāfat ;
Dār al saltanat ;
Dār al ḍarb ;
Zīnat al bilād.

Mint : Ahmadnagar.
Epithet : Farrukhābād.

Mint : Udaipūr.
Epithets : Muḥammadābād ;
Marṭūbat.

Mint : Urdū.
Epithets : Dar ṣāḥib-i-Qusṭun ;
Zafar qarīn.

Mint : Akbarābād.
Epithets : Baldat ;
Dār al khilāfat ;
Mustaqirr al khilāfat.
Mustaqirr al mulk.

Mint : Akbarpūr.
Epithet : Dār al khilāfat.

Mint : Jodhpūr.
Epithets : Dār al taṣawwur ;
Dār al manṣūr ;
Dēh.

Mint : Jaipūr.
Epithet : Sawāī.

Mint : Champānīr.
Epithet : Shahr mukarram.

Mint : Hiṣār.
Epithets : Dār al ḍarb ;
Fīroza.

Mint : Ḥaidarābād.
Epithets : Dār al jihād ;
Farrukhābād ;
Farkhunda bunyād.

Mint : Dogām.
Epithets : Dār al Islām ;
Dār al khilāfat ;
Dār al salām.

Mint : Dhārūr.
Epithet : Fatḥābād.

Mint : Dehlī.
Epithets : Ḥaḍrat ;
Dār al mulk Ḥaḍrat.

Mint : Dewal.
Epithet : Bandar.

nt : Akbarnagar.
thet : Shāh gardūn bārgāh.]

ıt : Āgra.
thets : Baldat ;
[Khusrau getī panāh];
Dār al amān ;
Dār al khilāfat :
Dār al ḍarb qal'a ;
Dār al 'adl ;
Qal'a.

ıt : Alwar.
ithet : Qal'a

ıt : Ilahābād.
ithet : Baldat.

---

t : Indrapūr.
ithets : Braj ;
Maha.

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nt : Awadh.
ithets : Dār al khilāfat ;
Dār al khilāfat khiṭṭa ;
Sūba.

---

nt : Burhānābād.
ithet : Dār al salṭanat.

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nt : Burhānpūr.
ithets : Baldat ;
Baldat fākhira ;
Dār al surūr.

Mint : Sūrat.
Epithet : Bandar mubārak.

Mint : Sahāranpūr.
Epithet : Dār al surūr.

Mint : Sahrind.
Epithet : Baldat.

Mint : Shāhjahānābād.
Epithet : Dār al khilāfat ;

Mint : 'Āẓīmābād.
Epithet : Mustaqirr al mulk.

Mint : Fatḥpūr.
Epithets : Dār al salṭanat ;
Dār al ḍarb.

Mint : Qanauj.
Epithets : Shāhābād ;
Shergarh.

Mint : Kābul.
Epithet : Dār al mulk.

Mint : Kālpī.
Epithets : Dār al ḍarb ;
Dār al ḍarb khiṭṭa ;
Muḥammadābād.

Mint : Gwāliār.
Epithets : Dār al khilāfat ;
Qal'a.

Mint : Barelī.
Epithets : Āṣafābād ;
Khiṭṭa ;
Qaṭʿ.

Mint : Banāras.
Epithet : Muḥammadābād.

Mint : Bindrāban.
Epithet : Mūminābād.

Mint : Būnch (? Pūnch).
Epithet : Qalʿa.

Mint : Bahrāich.
Epithet : Dār al khilāfat.

Mint : Bījāpūr.
Epithet : Dār al ẓafar.

Mint : Pānīpat.
Epithet : Qaṣba.

Mint : Patna.
Epithets : Dār al ḍarb :
Mustaqirr al mulk.

Mint : Jammūn.
Epithet : Dār al amān.

Mint : Jaunpūr.
Epithets : Dār al khilāfat ;
Dār al ḍarb :
Dār al ḍarb mutabarrak khitta;
Dār al muṣawwir dēh (?).

Mint : Gorak[h]pūr.
Epithet : Dār al khilāfat.

Mint : Lāhor.
Epithets : Dār al khilāfat ;
Dār al saltanat.

Mint : Lakhnau.
Epithet : Dār al khilāfat.

Mint : Multān.
Epithet : Dār al amān.

Mint : Mandisor.
Epithet : Dār al salām.

Mint : Nāgpūr (? Nāgor).
Epithet : Dār al barakāt.

Mint : Hānsī.
Epithet : Ṣāḥibābād.

Mint : Hardwār.
Epithet : Tīrt.

Mint: ?
Epithet : Baldat-i-Ṣafā.

Mint : ?
Epithet : Zain al bilād.

N.B.—(Feb., 1905) Add Mint : Sherkoṭ.
Epithet : Qaṣba.

Chairman's Remarks.

PRINCIPAL MACMILLAN, after expressing his admiration of the very learned addresses of Dr. Taylor and Mr. Jackson, hoped he might be excused for saying a few words to show that coin-collecting, even when carried on in a more desultory manner, afforded a considerable amount of pleasure and profit. He then gave some of his own experiences of the delights and sorrows of coin-hunting, a pursuit which he had indulged in for some years in spite of the shock he received when he found that his best gold and silver coins were stolen, and thought of his cherished Athenian owl being melted into silver to supply the robber and his family with gram and bidis. He had with him two beautiful silver coins of Augustus and Tiberius that had been found in a chatty in a railway cutting in Mysore. Such a fact was a valuable historical datum, as it gave evidence to the commerce between India and Italy at the beginning of the Roman Imperial period, when Rome through Egypt gained access to the markets of India. Thus even the humblest collector of coins might find in his hobby not only amusement, but also the means of realising more clearly by visible tokens the facts of past history.

rest securely in their supreme position till they had disposed of the formidable power of the Peishwas. And even in later times the spectre of Brahman supremacy has continued to haunt them on occasions.

Of Shivaji's concluding moments and death there are several accounts which it would be interesting to recount here for comparison. First there is the contemporary account by the *bakhar* writer, Chrisnaji Anant Sabhasad, who wrote his life under Shivaji's son Rajaram in 1698. This is pretty long and on the whole appears faithful with its interesting details. This *bakhar* is not well-known to all students of history, and even by Mahrathas, who deservedly attach a high importance to this among other *bakhars*, it is more praised than read and studied. I think the edition of Mr. Sane is long out of print and no one seems to care to keep it in print, a good measure of the negligence of the Mahrathas for their historical literature. Sabhasad, as his name signifies, was a courtier of Rajaram for whom he specially wrote this life of Shivaji. According to him, when Sambhaji returned to Panhala after his unsuccessful overtures to Aurangzib and was reconciled to his father, Shivaji left that place for Raighad, in order to perform there the marriage ceremony of his younger son Rajaram. He said he would soon return and attend to the administration of his new possessions. The marriage was performed at Raighad with great pomp and large sums were given in charity.

Soon after, says Sabhasad, the king was attacked by fever. He was a righteous personage, and possessed foreknowledge of the time of dissolution. He thought within himself that his end was approaching and therefore summoned before him the wisest of his kárkuns and servants. He said to them that his death was approaching and that he was going to see the Goddess Bhowani and reside in the paradise of Shiva. Then he spoke as follows: "With regard to my sons, when I saw I was getting feeble, I told Sambhaji, my eldest son, at Panhala that I was desirous of dividing my kingdom between my two sons. Sambhaji did not like my proposal. My end is now approaching. From my original possession of the Mahal of Poona, which was worth 40,000 hones, I have now raised my acquisitions so as to be worth one crore of hones. I also acquired these forts, strongholds, Pagas and the army. If Rajaram lives long after my death he alone will preserve and enlarge this vast kingdom. Sambhaji is sensible, yet of loose and dissolute habits, and I do not know how to act under the circumstances especially as my end is now drawing near. You are old and experienced kárkuns and servants in this kingdom of the Mahrathas and you must therefore have already been familiar with this state of things. After my death Sambhaji will usurp everything to himself by his exploits. Being the elder son, the

army will prefer him and flock to his standard. Rajaram being the younger son, the army will not care to win his favour. The sirkárkuns will advocate the cause of Rajaram and urge the necessity of dividing the kingdom between the two brothers. The army will not agree with the kárkuns, who will be betrayed by it. Sambhaji will put to the sword many of the eminent Brahmans of my time. There will thus be the sin of Brahman slaughter. He will next lay violent hands upon the Mahratha Sirdars in the army and degrade and even kill them. The mean and the insignificant will prevail. The respectable will dwindle into insignificance. Sambhaji will indulge in intoxicating drugs and in amorous pleasures. In the forts, strongholds and throughout the kingdom there will be injustice and offences. Sambhaji will not respect the worthy. He will squander away all the wealth and treasure. As soon as he learns of Sambhaji's weakness, Aurangzib will take advantage of the disorder into which my kingdom will fall and invade and capture Bijapur, Bhagnagar and even this kingdom. Ultimately Sambhaji will be ruined. Just as Futteh Khan turned disloyal to his father Malik Ambar Nizam Shah and treacherously deprived him of his kingdom and ultimately lost it, so will Sambhaji lose my kingdom. Rajaram will then succeed to the throne and will reconquer the lost kingdom and restore order. He will perform deeds more chivalrous than mine. Now with regard to the kárkuns, the eminent sirkárkuns of my time, Sambhaji will not allow them to see the light of day. Pralhadpant and Ramchandra Nilkanth will however be illustrious. Nilkanth will also be popular. There will be a few others similarly illustrious, but these will be very few. Of the Mahrathas, Sambhaji will extirpate many. Of those that remain, Santaji Ghorpadé, Babirji Ghorepade, Dhanaji Jadhav will, if they live, perform chivalrous deeds. These three Brahmins and Mahrathas will prove serviceable in recovering the lost kingdom." Thus spoke the king.

Thus far Sabhasad. This speech of Shivaji is very probably composed by Sabhasad himself; but the sentiments put into the mouth of Shivaji are historically true and correct. It is interesting to find the Mahratha chronicler unconsciously imitating in this matter of speeches the great classical historians like Thucydides and Livy, who constantly compose speeches for their heroes and make them speak for themselves. The true courtier-like manner in which Sabhasad, true to his name, flatters delicately the vanity of his patron Rajaram, for whom, as we have said, he wrote this chronicle of his great father's deeds, by making Shivaji prophecy his son's greatness, reminds one of Shakespear's similar flattery of Elizabeth, under whom he wrote and for whose court he composed several of his plays, put in the prophetic mouth of Cranmer in the presence of her father, Henry VIII, though of course there is a vast gulf between these finished lines of the

famous world-poet and the crude effort of the Mahratha chronicler :

"Let me speak, Sir,
For Heaven now bids me ; and the words I utter,
Let none think flattery, for they'll find them truth.
This royal infant (Heaven still move about her !)
Though in her cradle, yet now promises
Upon this land a thousand, thousand blessings,
Which time shall bring to ripeness. She shall be
(But few now living can behold that goodness)
A pattern to all princes living with her,
And all that shall succeed : Sheba was never
More covetous of wisdom, and fair virtue,
Than this pure soul shall be : all princely graces,
That mould up such a mighty piece as this is,
With all the virtues that attend the good,
Shall still be doubled on her : truth shall nurse her,
Holy and heavenly thoughts still counsel her,
She shall be loved and fear'd : her own shall bless her,
Her foes shake like a field of beaten corn,
And hang their heads with sorrow : good grows with her.
In her days every man shall eat in safety,
Under his own vine, what he plants ; and sing
The merry songs of peace to all his neighbours.
God shall be truly known ; and those about her
From her shall read the perfect ways of honour,
And by those claim their greatness, not by blood.
She shall be to the happiness of England
An aged princess ; many days shall see her.
And yet no day without a deed to crown it,
Would I had known no more ! but she must die—
She must, the saints must have her—yet a virgin ;
A most unspotted lily shall she pass
To the ground, and all the world shall mourn her."

[*Henry VIII*, V. 5, *ad fin.*]

Sabhasad continuing his account says that after Shivaji had concluded his prophetic address, all the attendants were overcome with grief ; they stood in silence and tears began to run down their cheeks. The king seeing this said : "Grieve not ; this is but a mortal world. As many as are born perish. Calm your feelings, be of pure hearts, be peaceful and happy. Now sit quiet till I hold communion with my patron goddess (Bhowani)." The attendants accordingly sat in silence. Then the king bathed in the sacred waters of the Bhagirathi, rubbed ashes to his body, put on a necklace of Rudraksha—the berry of a tree sacred to Shiva his eponymous god—and having composed himself to abstract spiritual devotion, was lost in solemn communion. He expired at Rayghad in the afternoon of Sunday, the 15th of the light half of

Chaitra, in the year of Saliwan 1602, Roudra Samvatsar. 'The angels of Shiva brought a chariot of the god in which his spirit was taken to Kailas, heaven; the perishable portion of himself, his body, being left in this mortal world.'

The Rairi *bakhar* is another important and authentic chronicle of the life and deeds of Shivaji. It is so called because it was deposited in the fortress of Rairi which is now conclusively identified with Raighad, the place where Shivaji died. Orme had previously placed it "fifty miles north and by west from Poona." (*Fragments of the Moghul Empire*, p. 22.) But Scott Waring has shown that Orme was misled by Fryer's account of Oxenden's mission to Shivaji. "Lieutenant Goodfellow, of the Bombay Engineers, established on the spot that Raighad to this day is called Rairi, and that instead of being north-west of Poona, it is situated thirty-eight miles west and forty-two south from Poona. This information I had always received, but it is owing to the active and intelligent exertion of Colonel Close, ardent in the promotion of all geographical inquiries, that its precise situation is now established beyond all question." (*History of the Mahrathas*, 1810, p. 199.) This *bakhar* is considered by Scott Waring, a very good authority on Mahratha historical MSS., as the most authentic of the four *bakhars* of Shivaji he had (*ibid*, p. 195). He evidently had not before him that of Sabhasad. This *bakhar*, "which was kept at Rairi, the ancient capital of Shivaji's empire" (*ibid*, p. 195), was published for the first time by the Bombay Government in a volume of "Letters and State Papers in the Bombay Secretariat," edited by Mr. G. W. Forrest twenty years ago.

In this chronicle there is a somewhat different account of Shivaji's death from that given by Sabhasad. "Shivaji marched and plundered Jalnapur. Ranmast Khan came and opposed Shivaji. One day the Khan's troops made a furious attack on Shivaji's army. Sadhoji Nimbalkar, a Sirdar over five thousand in Shivaji's service, was killed, and Shivaji was defeated and fled to the fort of Putta to which he gave the name of Vikramghad. After that Shivaji went to Raighad, and after the Dassera sent his Sirdars to collect Mulukgiri. Shivaji was soon afterwards seized with a violent fever which carried him off on the ninth day. His death happened in the year 1602 of the Salivan era (1680 A.D.). Shivaji, before he died, gave a paper, which he had written to Moro Pant Anaji Dattu Sabnavis and Babul Parbhu Chitnavis. At that time Shivaji's younger son Rajaram was at Raighad. His eldest son Sambhaji was at Panhala. The officers to whom Shivaji had given the paper gave the Government to Rajaram. The other Chiefs were averse to this measure, and joined Sambhaji." (*State Papers*, Bombay, Vol. I, p. 22.)

Sabhasad we have seen makes Shivaji foretell the future on his death-bed. The Rairi chronicler also makes him prophetic. But he puts the event seven years earlier when his patron goddess Bhowani possessed him for a few hours and showed him future events. This is much more striking than the former account as it goes farther into the future. "When Shivaji went to take half his share of Chundi Chunjavar in the year of Salivan 1595 (1673 A.D.) the goddess Bhowani came into his body and remained there five hours, during which time she gave him a view of future events, *viz.*, that all his domains would fall into the hands of people with red faces; that Sambhaji would be taken prisoner by the Moghuls; that Raja Ram would succeed him on the musnud; that Shivaji would in the course of time come into the world again under a new form, and extend his dominions to Delhi; and that dominion would remain in the Bhonsle family for twenty-seven generations: all this Raghunath Narayan Hunavanti and Dattoji Pant Wakarnavis and Babul Parbhu Chitnavis committed to paper." (*State Papers, ut supra.*)

Of accounts by Europeans we possess two by contemporaries who were in India at the time of Shivaji's death, Manucci and Fryer. Manucci was a Venetian Physician who resided forty-eight years in India and was in the service of the Moghul Emperors Shah Jehan and Aurangzib. He wrote memoirs of the Moghul sovereigns which were derived from Moghul chronicles preserved at Delhi in Persian. They were written in Portuguese into which the Persian extracts had also been translated. They were sent to Europe in manuscript but were not published. But Father Catrou, a learned Jesuit, based his history of the Moghul Empire published at the Hague in 1715 on these MS. memoirs of Manucci, and it is through this work that we know them. Unfortunately the complete work of Catrou which includes the reign of Aurangzib and life of Shivaji is very rare, and is not in our Library, and I could not find it elsewhere. (Edition in 5 Vols., French, 1715, *Biog. Universelle sub nomine.*) An English translation was published in 1826, but this is incomplete as it comes up to Shah Jehan and does not include Aurangzib's eventful reign. We have this incomplete translation in our Library (*vide* Irvine, Art. on Manucci, in Journal Royal Asiatic Society, 1903.)

Orme, who has written much and well on Shivaji, has evidently consulted Catrou's history of Aurangzib based on Manucci's memoirs, as he says: "Catrou although guided by Manucci (who says more of Shivaji than all the other writers, and particularises the cause of his death) simply says that he died in 1679, from which we conclude that Catrou did not find the particular date in Manucci's manuscript, and gave it generally from a conjecture of his own." (*Fragments*, p. 260.)

Scott Waring says that the account of Shivaji's death by Orme "is natural, and I should have adopted it, had I known upon what authority it was given." (*History of Mahrathas*, p. 205.) But in the passage given above Orme indicates clearly his authority to have been Manucci as given by Catrou. We will give Orme's account which seems to be a version of Catrou-Manucci, failing Father Catrou's own French. "Shivaji was gone from Rairi, but no one knew whither, a convoy of money to a great amount was coming to Aurangabad, of which as of everything concerning his enemy he received early intelligence; and taking his time before his intentions could be suspected, issued with a detachment of his hardiest cavalry, remote from all the Moghul's stations, and fell upon the convoy before his approach was known, within a few miles from Barhampore, where it would have been safe, until sent forward with stronger escort. He seized the whole, and brought it without interruption and the same rapidity to Rairi. But the purchase was dearly earned; for the excessive strain of fatigue, greater than any he had endured since his escape from Delhi, caused an inflammation in his breast, attended with spitting of blood: his disorder, although increasing every day, was kept secret within his palace at Rairi; and if it had been published would not have been believed, since he had more than once sent abroad reports of his death, at the very time he was setting out on some signal excursion; and at this very time his army towards Surat, which he probably intended to have joined, were acting with such ravage and hostility up to the walls that the city imagined Shivaji himself was commanding in person; and expected an assault with so much terror that the English Presidency sent off the treasure of their factory across the river, to the Marine of Swally, where lay some of their ships; and the Governor of the town redeemed his fears by a large contribution, with which Moro Pandit returned to Rairi to see his master die. He expired on the 5th of April 1680, and in the fifty-second year of his age. His funeral pile was administered with the same sacrifices as had been devoted the year before to the obsequies of the Maharaja, Jeshwant Sing of Jodhpur: attendants, animals, and wives were burnt with his corpse." (*Fragments*, ed. 1805, pp. 89—70.)

The other contemporary European account, that of Fryer, the famous English physician who was in Bombay and Western India from 1674 to 1682, does not throw any light on the cause of Shivaji's death, but merely records it with a wrong date, as we shall presently see, and gives details of the funeral ceremonies. Scott Waring, whose History of the Mahrathas written in 1810 is very important, and whose account of Shivaji is based as we have said above on

four *bakhars*, including the Rairi, says: "He retired to *Raipi* (*sic*, Rairi), and as usual among the Mahrathas detached his troops after the Dasara to raise contributions from the neighbouring provinces. His constitution had now begun to fail; he was seized with a spitting of blood and expired upon the fifth of April 1680, in the fifty-third year of his age, and thirty-sixth of his reign dating it from the death of his guardian Kondev." (*Hist. of Mahrathas*, p. 87.) Grant Duff in his History of the Mahrathas first published in 1826, says that "he was taken ill at Raighad, occasioned by painful swelling in his knee-joint, which became gradually worse and at last threw him into a high fever, which on the seventh day from its commencement terminated his existence on the 5th day of April 1680 in the fifty-third year of his age." (Vol. I. p. 295.) He does not mention his authority, but he must have had some Mahratha MS. lives of the hero before him. It may be here noted that both Shivaji and Napoleon died young at exactly the same age of fifty-three, and that Julius Cæsar was only two years older at his death than either.

The usual suspicion of poison when an Asiatic ruler dies was not altogether absent in the case of Shivaji. "The Mahratha MSS.," says Scott Waring, "insinuate a suspicion of poison. The suicide of his wife, whose views (of setting her son Raja Ram on the throne) had failed, almost justifies this supposition. One Mahratha MS. expressly charges her with the murder." (*Hist. of Mahrathas*, p. 215.) It would be interesting if these MSS. were to turn up. So far as I am aware they have not yet turned up. But that there exist such we know on the very high authority of Scott Waring.

It remains to be said that the Persian MSS. attribute Shivaji's death to the prayers of a Mussalman devotee (*ibid*, p. 215). Jonathan Scott in his continuation of Ferishta's History of the Deccan from supplementary Persian sources says that the curses of a Moslem saint brought about his death. In the journal kept by a Bundela officer, which came into the possession of Jonathan Scott and which he translated as "Auranzib's Operations in the Deccan," this writer who was a contemporary of Shivaji's says: "Shivaji having marched from his country to invade the Imperial territories, totally laid waste the district of Jalnehr and others; and his soldiers, notwithstanding his commands to the contrary, offered insults to the servants of Jan Mahomed, a religious devotee, from whose curses it was believed Shivaji was taken ill, and shortly after died." (*Hist. of the Deccan*, ed. 1796, Vol. II, p. 54). This is a truly Oriental explanation of the death, and it may be that the people, both Hindus and Mahomedans, believed in it, as belief in death and misfortunes from curses of holy men is very common in this country and the East generally. But the real cause is, as Scott remarks, that he died neither by

poison, nor the visitation of God at the prayers of a devotee, but rather by an illness from fatigue in his flight and vexation at the ill-success of his arms. Shivaji, it will be remembered, according to one account, was defeated in his last expedition, and pursued by the Moghul General Ranmust Khan ; and also his fleet was destroyed about this time, by the Sidi of Janjira in conjunction with the English at Bombay.

As to the date of his death almost all authorities agree that it was 5th April 1680. It was the 15th of the light half of Chaitra in the Salivan year 1602, according to Sabhasad's *bakhar*. According to calculations I have made, making use of tables given in Messrs. Sewell and Dikhshit's "Indian Chronology"* (London, 1895, Table I, p. cxxxviii), this Hindu date corresponds with the date given above and in Orme, Scott Waring and Grant Duff. Curiously the two contemporary European writers above noted give wrong dates in their otherwise excellent accounts of him. Manucci, according to Catrou, as we have seen in Orme (*Fragments*, p. 260), gives 1679 ; but we may adopt Orme's explanation of this mistake as Catrou's, who "did not find the particular date in Manucci's MS. and gave it generally from a conjecture of his own" (*ibid*).

Fryer, the careful physician and traveller, whose travels are so interesting for the accounts they contain of affairs in India that were happening in the eventful times when he was here in the seventies of the seventeenth century, says that Shivaji died on 1st June 1680. We quote what he has to say about his death and funeral in his own quaint language : "In the heat of all these combustions, the firebrand Seva-Gi is called to pay the common debt to Nature, he expiring June 1, 1680, though after some time his arms are carried on by his son Sambu Gi Raja, whose first care was to solemnize his father's exequies with hellish and cruel rites, after the barbarous custom of these princes, to burn all that were grateful to them when living, to attend them in the other state of life ; doubtless deriving it (which is more than alluding to) from the ancient Getæ, their first parents and not theirs alone, but of all the world since the Deluge. . . . . Seva Gi while living, as he delighted in fire and sword, so he was sent out of the world with a numerous company consumed in his flames : yet not such a train as Raja Jessinsin had when he died, which was far greater, being a more potent though less barbarous Raja ; but his widow now holding out against the Mogul, though his prime lady, being then big with child, was excused, and she still is preserved to bring up the young prince, whom they own for their Raja. Thus these two great Rajas being disposed of by Fate, the Gentiles seem to be under hatches (the Mogul for the present persecuting them.

*Cf. also Cunningham's "Indian Eras," p. 147.

with the utmost severity and hatred) and the rather, for that the great Ministers of the deceased Siva Gi were at variance about the promotion of the successor. Anna Gi Pundet, Chief Minister of State, setting up the younger son, and Morad Pundet declaring for Sambu Gi, the eldest; who after punishing his opposers, was before the time fit for expedition in the low countries, proclaimed Man Raja or the lawful heir to his father's conquest." (*A new account of East India*, Lond., 1698, pp. 415-6.) We may here note in passing that Fryer's quaint way of spelling Indian names though sometimes faulty owing to false analogy, is yet not without its redeeming feature. He is distinctly wrong in calling Moro Pundit, Morad Pundet; here he is misled by the false analogy which the Hindu name bears to the Mahomedan. But his method of separating the Gi or Ji in Hindu names is rational, and more likely to point out that the real name is Seva or Sambha and the Ji is a mere honorific addition.

But though Fryer was a contemporary writer, he is wrong in his date, and this Orme, perhaps the most valuable of all writers on Indian history, alike for style and accuracy, and the critical judgment with which he used all available authorities, points out ably in his note on the subject: "Mr. Fryer is mistaken in saying Shivaji died on the first of June 1680; but as Mr. Fryer did not digest his letters for publication until twenty years after their date, his memory might easily fail in correcting the error of his memorandum." (*Fragments*, p. 260.) He points out that letters from the English authorities at Bombay, Surat and Rajapore prove that the 5th of April is the true date. He does not rely on the Mahratha MSS. for this, but has English records to help him; and these latter confirm independently the former. How the mistake in the date arose may be at once seen from the letters of the Surat and Bengal authorities answering their Bombay friends who had written to them informing them of Shivaji's death. The English at Bombay wrote on 28th April 1680 saying "We have certain news that Sevajee Rajah is dead; it *is now twenty-three days since he deceased*, 'tis said of a bloody * flux being sick twelve days." (Orme from Records at the India House London, p. 259.) To this those at Surat replied on the 7th of May, "Sevajee's death is confirmed from all places; yet some are still under a doubt of the truth, *such reports having been used to run of him*

* This cause of his death is confirmed by the author of the "Maasir-i-Alamgiri," a history of Aurangzib's reign written by a contemporary writer Mustaridd Khan, and finished in 1710, a few years after its close. "On the 24th of 'Rabiul Akhir,' Siva returned from riding; he was overcome by the heat, vomited blood and expired." (Apud, Elliot, "Historians of India," Vol. VII, p. 305 n.) The famous Khafi Khan who wrote under Aurangzib notes that "in the course of the same year (1090 of the Hegira, *i.e.*, 1680 A.D.) Sivaji was attacked by illness and died." (*Ibid.*)

before some considerable attempt; therefore shall not be too confident until better assured." The English in Bengal were more incredulous still, and in this incredulity we see the terror in which he was held by people everywhere, the Moghuls as well as the English, in Bombay and Surat as well as in Delhi and Bengal. "Sevagi," write the Bengal agents, in reply to the Bombay letter, on the 13th December 1680: "Sevagi *has died so often* that some begin to think him immortal. 'Tis certain little belief can be given to any report of his death until experience tell of the waning of his hitherto prosperous affairs; since when he dies *indeed*, it is thought he has none to leave behind him that is capacitated to carry on things at the rate and fortune he has all along done." (*Apud.*, Orme, *Fragments*, p. 259.)

What Fryer says about the barbarous and horrid funeral rites is unfortunately true, though no mention of them is made in the *bakhars*, chiefly because they were supposed to be a matter of course and hardly worth mentioning. Orme remarks upon these rites that they "almost revoke the respect which contemplation cannot refuse to the gentle manners of the Hindus in all other observances. The Brahmans always preside and officiate in these sacrifices, and with more zeal than in any other of their priestly functions, excepting when they sacrifice themselves to save the temple of their religion." (*Fragments*, p. 261.) The mother of Shivaji's son, Rajaram, was exempted from the funeral pile, as having passed the term of beauty which, remarks Orme, seems alone to be consecrated to this cruel penalty. This wife of Shivaji, Tara Bai, was suspected of having poisoned him, as we have seen, and committed suicide when her project to place her son, Rajaram, on the throne immediately on the death of his father failed. "Toorya Bhy disappointed in her scheme of placing her son on the throne, to effect which it was supposed she had poisoned Shivaji, destroyed herself." (Scott Waring, *op.*, *cit.*, p. 110.)

Recording the death of Shivaji, the *bakhar* writer, Krishnaji Anant Sabhasud, says that "the king was no doubt an incarnation of the deity. By his exploits he established his sway over the vast range of country extending from the Nerbuda to Shri Rameswar, and having harassed and overrun the territories of the Adilshahi, Nizamshahi, Kutbushahi and Mughlai Governments and kept in awe the twenty-five Emperors that reigned over the sea, established a new kingdom of his own and assumed the throne and Chhatra under the title and dignity of the first Mahratha Emperor, and ultimately having died when he was disposed to die, went to Kailas. No such hero was ever born nor will there be any in the days to come." And the awful events that happened when he died which the chronicler narrates, were in keeping with this character. "On the day of the king's demise there was an earthquake,

also the rising of a comet, the falling off of stars and a pair of rainbows at night in the heavenly firmament; everywhere there was mist; the people at Shri Sambhu Mahadeo were frightened. The fishes leapt out of the water."

We might at first be disposed to set this down to Oriental credulity, and brush it aside as a pardonable untruth. The mind, and especially the Oriental mind, loves to picture the forces of Nature as mourning for their great men, and associate extraordinary phenomena with their deaths. So we might think the Mahrathas fancied all the strange things they are here alleged to have seen out of their excessive love and admiration for their national hero, who was called away from their midst. But with some exaggeration, natural enough under the circumstances, this seems to be true, and we have excellent independent evidence of an eye-witness that strange, very strange things were seen about the time Shivaji died; and it is to this I would draw your attention particularly to-day. Great calamities in which men somehow see the hand of Providence seem to be connected, or say coincide with great events in the lives of great men, their birth, accession, death. Both the accession to the throne of Akbar in 1556 and his death in 1605 were accompanied by famines of great magnitude. To take an instance nearer to our own time, as I have shown elsewhere (*Calcutta Review*, Jan. 1898) memorable dates in the life and reign of our late Queen, Victoria of saintly memory, are connected with great calamities which mark out its prominent years in India. Her birth in 1819 was marked by a great earthquake; her accession in 1837 coincided with a widespread famine and plague, soon followed by the disastrous first Afghan War; her proclamation as Queen of India in 1858, followed upon the unparalleled calamity of the Indian Mutiny; her proclamation as Empress in 1877 was in the midst of another great famine, soon followed by the calamitous second Afghan War; the celebration of her Diamond Jubilee of Sixty years in 1897 was in a year unparalleled for calamity, plague and famine and frontier wars; and finally the year of her death, 1901, saw the recurrence of famine and continuation of plague, and war in various parts, in South Africa and China.

Nature seems to burn great dates in history into the memory of men by associating striking events, generally calamities, with them. The reigns of Akbar and of Victoria are the best periods of Indian history; but in order to make them indelibly memorable, their great years, the *anni mirabiles*, are associated with striking calamities. So it seems is the case with Shivaji. The year of his exit from the land was marked by events calculated to inspire awe into the people. The death of such a popular and national hero who had succeeded in reviving the spirit of nationality among a fallen people, was in itself a

sufficiently awe-inspiring event. To mark this event, so it seems, a comet appeared in the heavens, not an ordinary comet such as appears every few years, but a really extraordinary one, both in its brilliance and the awe that it inspired. Such a comet appears very rarely, but once or twice in a thousand years. According to the famous astronomer, Halley, it appears once only after the long period of 576 years, and according to recent calculations necessarily more exact, it appears but once in 8,813·9 years, and according to some astronomers it will never come again. (Halley's "Astronomy of Comets," apud Whiston's "Newton's Phil., more easily demonstrated," 1716, p. 440.)

The Mahratha chronicler is confirmed in the main by Fryer, who, of course, was unconscious of what the courtier of Rajaram had written. The *bakhar* was curiously written in the same year that Fryer published his travels, 1698, from his notes made in India nearly twenty years before. Fryer mentions several extraordinary phenomena as having occurred in the year 1679—80, the year of Shivaji's death. We shall quote his accounts of them here. Writing on the last day of the year 1679 he says: "This year has been filled with two portentous calamities, the one inland, a shower of blood for twelve hours; the other on the sea-coast, Mechalapatam (Maslipatam) being overturned by an inundation, wherein sixteen thousand souls perished." (*East Indies*, p. 414.) This was four months before the death of the hero. Writing in 1681, January 25, he mentions more strange events still—a few months after his death. "This year (1680) a drought was feared, which the Brahmins interpret a judgment for the Emperor's persecuting the Gentoos, which whether it gain credit among all people, I cannot tell. But that night and day a mixed multitude of all sorts ran through the streets of this city [Surat], after the Brahmins carrying a board with earth upon their bare heads and crying: *Bowe bege panne des*; on which old and young make the chorus to the precentor, sprinkling water and sowing rice thereon, saying the same after the Brahmin, which in English is *God give us water;* and on this impending affliction they are very charitable, and give great largesses to the poor." (*Ibid*, p. 418.)

Continuing, Fryer says that "I should have concluded these remarks here, had not a wonderful sign in the heavens appeared to call for animadversion, which, beginning the 20th of November (1680), disappeared not till the latter of January (1681) which enters on the next year, that within the space of our Europe fleet may bring you the rise and fall of the most prodigious comet I ever was witness to; or it may, the oldest men alive: What makes me more willing is, that I may have your account overland, whether it was visible in England, and what observations our prying world have made thereon. Eleven degrees from the earth, south-east, a terrible flaming torch was

seen in the skies in Capricorn, near the head of Sagittarius, darting its rays upwards to the stars; at first, not above two ells in a small stream, but day by day as it inclined to the horizon, the flame grew longer but slenderer; it rose first at three in the morning, and so later and later till the sun outshone it; and as if it had circled the globe, at last it arose and set at nights, after the sun was down, when we beheld it W.N.W. which was on the evening of the twelfth of December, and about seven at night; at first no bigger than a man's hand from its coming forth of the horizon, which thence arose with a mighty *fulgor* or shining light for more than nine degrees, as big as a rainbow towards the highest part of the hemisphere; or, to speak more truly, like a pillar of fire, whose basis, whether for its tardy rise of the clouds gathered about the atmosphere, I could not discern till the seventeenth, it setting about nine o'clock; but after that time it ascended above the horizon, and passing the middle of the heavens (which afore it seemed to enlighten after seven) as it grew higher it lost of its brightness and splendour, but looked more fiery. January, the 16th 1680, it had attained its zenith, when about the noon of night it vanished, and so by degrees at last it came to nothing. While this was reigning, several in the Hole [Swally—Hole near Surat] and Bazzar, at Swally, attested they saw two moons; others of our Englishmen, out a hunting after sunset, saw an unusual star of the bigness of the sun, which must certainly be this fiery ejaculation, striking obliquely upwards, being equally thick, until its highest part had stretched itself into a column. It pointed towards the north, and whether it be meteor, comet, or exhalation, it is certainly ominous; and since they disclaim its influence here, I wish it may not affect our Europe kingdoms: for says Clandian :—

> "In coelo nunquam spectatum impune Cometam"
> "In Heaven no Comet ever shin'd
> Which was not grievous to mankind."

(Fryer, *ibid*, p. 419.)

This is all very like what Sabhasad says happened at the time of Shivaji's death: "the rising of a comet, the falling off of stars, and a pair of rainbows at night." Fryer even adds to these wonders his own: "a double moon, a 'star of the bigness of the sun,' and a shower of blood." The earthquake spoken of by the chronicler is evidently the tidal wave, the "overturning inundation" at Maslipatam mentioned by Fryer. It may be noted that Fryer does not connect them with Shivaji's disappearance from the earth, and the Englishman would have no motive, as the native chronicler would have, in magnifying the event.

Leaving the other strange phenomena alone for the present, we shall pursue the comet further. There is not the slightest doubt that it

appeared a few months after Shivaji's death. It is famous all over the world and is historical, in that it was the first comet whose course was scientifically examined. The great Newton utilised it to give a valuable confirmation and proof of his gravitation theory, and deduced, from his observations of it, his famous laws of parabolic orbits for comets. "The great comet of 1680," says a distinguished astronomer of our day, Prof. Simon Newcomb, "is remarkable for being not only a brilliant comet, but the one by which Newton proved that comets move under the influence of the gravitation of the sun. It first appeared in the autumn of 1680 and continued visible most of the time till the following spring. It fell down almost in a direct line to the sun passing nearer to that luminary than any comet before known. It passed in perihelion on December 18th, and, sweeping round a large arc, went back in a direction not very different from that from which it came. The observations have been calculated and the orbit investigated by many astronomers beginning with Newton ; but the results show no certain deviation from a parabolic orbit. Hence if the comet ever returns, it is only at very long intervals. Halley, however, suspected with some plausibility that the period might be 575 years, from the fact that great comets had been recorded as appearing at that interval. The first of these appearances was in the month of September after Julius Cæsar was killed ; the second in the year 531 ; the third in February 1106 ; while that of 1680 made the fourth. If, as seems not impossible, these were four returns of one and the same comet, a fifth return will be seen by our posterity about the year 2255." (*Popular Astronomy*, ed. 1878, pp. 374-5.)

Gibbon, in his great work, has noted the appearance of this comet in the reign of Justinian, when it was the precursor of unparalleled calamities, plague, war and famine over the Roman Empire, and made the following interesting observations about its various other appearances, or apparitions as they are technically called, in his stately and measured manner. "In the fifth year of his reign, and in the month of September (531 A.D.), a comet was seen during twenty days in the western quarter of the heavens, and which shot its rays into the north. Eight years afterwards, while the sun was in Capricorn, another comet appeared to follow in the Sagittary ; the size was gradually increasing ; the head was in the east, the tail in the west, and it remained visible above forty days. The nations, who gazed in astonishment, expected wars and calamities from the baleful influence, and these expectations were abundantly fulfilled. The astronomers dissembled their ignorance of the nature of these blazing stars which they affected to represent as the floating meteors of the air ; and few among them embraced the simple notion of Seneca and

the Chaldaeans, that they are only planets of a longer period and more eccentric motion. Time and science have justified the conjectures and predictions of the Roman sage; the telescope has opened new worlds to the eyes of astronomers; and in the narrow space of history and fable, one and the same comet is already found to have revisited the earth in seven equal revolutions of 575 years. The *first*, which ascends beyond the Christian era 1767 years, is coeval with Ogyges, the father of Grecian antiquity. And this appearance explains the tradition which Varro has preserved, that under his reign the planet Venus changed her colour, size, figure, and course: a prodigy without example either in past or succeeding ages. The *second* visit in the year 1193 is darkly implied in the fable of Electra, the seventh of the Pleiads, who have been reduced to six since the time of the Trojan War. That Nymph, the wife of Dardanus, was unable to support the ruin of her country; she abandoned the dances of her sister Orbs, fled from the Zodiac to the North Pole, and obtained from her dishevelled locks, the name of the *Comet*. The *third* period expires in the year 618, a date that exactly agrees with the tremendous comet of the Sibyll, and perhaps of Pliny, which arose in the west two generations before the reign of Cyrus. The *fourth* apparition forty-four years before the birth of Christ, is of all others the most splendid and important. After the death of Cæsar, a long-haired star was conspicuous to Rome and to the nations, during the games which were exhibited by the young Octavian in honour of Venus and his uncle. The vulgar opinion that it conveyed to heaven the divine soul of the Dictator, was cherished and consecrated by the piety of a statesman; while his secret superstition referred the comet to the glory of his own times. The *fifth* visit has already been ascribed to the fifth year of Justinian, which coincides with the year 531 of the Christian era. The *sixth* return in the year 1106 is recorded by the chronicles of Europe and China; and in the first fervour of the Crusades, the Christians and the Mahomedans might surmise, with equal reason, that it portended the destruction of the infidels. The *seventh* phenomenon of 1680 was presented to the eyes of an enlightened age. The philosophy of Bayle dispelled a prejudice which Milton's muse had so recently adorned, that the comet 'from its horrid hair, shakes pestilence and war.' Its road in the heavens was observed with exquisite skill by Flamstead and Cassini; and the mathematical science of Bernouilli, Newton, and Halley investigated the laws of its revolutions. At the *eighth* period in the year 2255, their calculations may, perhaps, be verified by the astronomers of some future capital in the Siberian or American wilderness." (*Decline and Fall*, Ed., Bury, 1898, Vol. IV, pp. 432—4.)